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USING SOCIAL LEARNING THEORY TO ENHANCE THE SOCIAL/EMOTIONAL DEVELOPMENT AND STATUS OF STUDENTS WHO ARE HARD OF HEARING IN INCLUSIVE EDUCATIONAL SETTINGS

by

PATRICIA ANNE HUGHES

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of

MASTER OF EDUCATION

in

SPECIAL EDUCATION–DEAFNESS STUDIES

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled USING SOCIAL LEARNING THEORY TO ENHANCE THE SOCIAL/EMOTIONAL DEVELOPMENT AND STATUS OF STUDENTS WHO ARE HARD OF HEARING IN INCLUSIVE EDUCATIONAL SETTINGS submitted by PATRICIA ANNE HUGHES in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION in SPECIAL EDUCATION–DEAFNESS STUDIES.

Dr. M. Rodda

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Date: 16th. April '96

ABSTRACT

The social/emotional development and status of students who are functionally hard of hearing and educated in regular classrooms are the focuses of this document. Literature review and annotated bibliography are the qualitative methodologies used. Relevant terminology and issues related to hearing loss, education, and social/emotional issues are discussed. Literature indicates that even mild hearing loss can have serious consequences. With limited auditory perception, these students may be disadvantaged for learning social rules, thus compromising their social/emotional development and status. A framework is presented, based on the social learning theory of Bandura and his associates, to effectively enhance the situation for these students. The framework is a tool for educators to evaluate existing social skills training materials. An annotated bibliography of selected cited sources concludes the thesis. Each entry has a concise critique of each item's relevance to the research question, providing an evaluative reference of existing literature.

THANK YOU

to Tom, Gavin, and Wendy
for their support, understanding, and cooperation

to Floyd
for keeping me grounded

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I. INTRODUCTION

From a review of pertinent literature, the present writer identifies factors related to maximizing the participation and success of those whom Davis (1990) calls "Our Forgotten Children": students who are functionally hard of hearing in mainstream/inclusive classrooms. Although their social/emotional status is an area of concern, their needs are often overlooked (Antia, 1985; Laszlo, 1994). Getty and Hetu (1994) elaborate on this position by stating:

> The audiological literature, [for instance,] provides extensive descriptions of the physiological and functional status of impaired hearing, but much less of the consequences of impaired hearing in everyday life (p. 268).

Interactive Effects of Social/Emotional Dynamics

According to Gregory, Shanahan, and Walberg (1984), most special educators believe that quality of life for students with disabilities, including those who are hard of hearing, generally includes three main areas: i) *academic achievement*; ii) *social and personal adjustment*; and iii) *post-school adjustment*. Academic achievement is an important determiner of a successful mainstream experience, but it is clearly not the only variable (Berry, 1992; Rittenhouse, 1987; Ross, 1990c; Ross, Brackett, & Maxon, 1982; Smith, Polloway, Patton, & Dowdy, 1995). For most students, academic success leads to better self-esteem and improved behaviour (Ireland, Wray, & Flexer, 1988), and social/emotional dynamics correspondingly have an effect on academic achievement (Berg, 1970b; Hamelberg, 1986).

Role of Communication

Academic success and social acceptance also depend on effective communication, which is dependent, in part, on the ability to hear. Hence, there is an interdependent nature to the challenges facing students who are hard of hearing, which are discussed in Chapter

IV. It is also asserted that too often academic communication is the focus to the neglect and detriment of important interactive communication (Levitt & McGarr, 1988 as cited by Berry, 1992). The ability to communicate socially with one's peers "is especially important because the effects of psycho-social isolation can be far more devastating than even the poorest of educational programs" (Berry, 1992, p. 35). The interrelationship between social skills competency, social acceptance, and emotional well-being is shown in this thesis.

Social Skills

Social skills refer to those "socially acceptable learned behaviors that enable the person to interact with others in ways that elicit positive responses and assist in avoiding negative responses from them" (Cartledge & Milburn, 1986, as cited by Gearheart, Weishahn, & Gearheart, 1992, p. 134). As "classrooms are very complex social systems" (Smith et al. 1995, p. 198) the serious consequences for students who are hard of hearing in regular classrooms are discussed at length in Chapter IV.

It is asserted that social/emotional interventions need to be integral parts of the classroom routine (Smith et al. 1995). The present writer proposes that the social learning theory of Bandura and his associates provides an effective framework for enhancing the social/emotional development and status of students in regular classrooms who are hard of hearing.

Importance of Addressing Social/Emotional Needs

The importance of addressing the social/emotional needs of students with disabilities has been reported by various researchers. For example, the results of a study by Sass-Lehrer (1986) found that instructional supervisors consider the enhancement of social/emotional development of students with hearing loss to be a critical competency for teachers. Wood and Carmean (1982) also conducted a similar study of administrators, regular classroom teachers, and special education teachers working in the mainstream to

determine their perceptions of what the characteristics are of a successful mainstreaming teacher. A highly desired characteristic was: "A recognition of the importance of social acceptance of the handicapped child" (Wood & Carmean, 1982, p. 22).

Teachers' Training and Attitudes

It is evident that, although most regular classroom teachers receive little training in dealing with students with hearing loss, they are wanting to learn (Chorost, 1988; French, & MacDonnell, 1985; Lass, Carlin, Woodford, Campanelli-Humphreys, Judy, Hushion-Stemple, & Boggs, 1986; Martin, Bernstein, Daly, & Cody, 1988; Rittenhouse, 1987; Ross, 1978; Schumm & Vaughn, 1991; Thomas, 1991). This is encouraging, because, as discussed in Chapter IV, many teachers and normally hearing peers often display negative stereotypical attitudes towards students with hearing loss and other disabilities. It has also been shown that with proper information, teachers are more comfortable teaching these students (Fitch, 1982; Murphy, Dickstein, & Dripps, 1960; Thomas, 1991) which would likely reduce any negative attitudes. In turn, this reduction would help to enhance the social/emotional development and status of their students.

Using a Social Learning Theory

Because of limited auditory perception, students with hearing loss are less likely to acquire social rules incidentally (Ross et al. 1991). Inadequate social skills, in turn, impact on an individual's emotional state (Rodda & Cumming, 1991). Direct teaching of prosocial skills is deemed necessary for many of these students. Thus, for many reasons, the social learning principles developed by Bandura and his associates were selected to provide a framework for teaching prosocial skills to students in regular classrooms who are hard of hearing. This framework provides the basis for recommendations and a tool with which educators may evaluate existing materials, techniques, and programs for their efficacy with these students. In Chapter VI a brief sampling of resources provides an example for educators to emulate when conducting their own evaluations.

Rationale for the Present Study

Principal reasons for the present study are: i) hearing loss negatively impacts academic and vocational achievement, self-image, social/emotional development and status, attention, and behaviour (Gregory et al., 1984; Schloss, 1984); ii) students who are hard of hearing may be disadvantaged for learning social rules because of limited auditory perception, thus supporting the need for direct intervention (Ross et al. 1991); iii) the social/emotional needs of these students have been vastly overlooked (Antia, 1985; Davis, 1990; Getty & Hetu, 1994; Laszlo, 1994); iv) schools provide an environment that facilitates social/emotional development of students (Rittenhouse, 1987); v) the majority of students who are hard of hearing are educated in regular classrooms (Warick, 1994) by teachers with no special training (Chorost, 1988); vi) students wearing hearing aids and/or lacking appropriate communication repair strategies, and/or having speech impediments may be exposed to negative stereotypical attitudes of their teachers and/or their peers which may cause further social isolation (Blood, Blood, & Danhauer, 1977, 1978; Danhauer, Blood, Blood, & Gomez, 1980; Gagne, Stelmacovich, & Yovetich, 1991); vii) some available literature sources may provide misleading information which may further reinforce negative stereotypical attitudes towards students who are hard of hearing; viii) teachers want appropriate information about dealing with students who are disabled (Chorost, 1988; Schumm & Vaughn, 1991); ix) research indicates that the social development of students with disabilities is the most emotionally charged aspect of special education (Fisher & Brooks, 1981; Schloss, 1984); x) research indicates that increased information improves teachers' comfort levels with disabled students (Fitch, 1982), consequently reducing negative attitudes; and xi) human behaviour is influenced and learned, either deliberately or incidentally, through exposure to social models (Bandura, 1971, 1972, 1975, 1976; Bandura & Barab, 1971). These points highlight some of the research findings and summarily justify the present study.

Overview of Thesis Contents

By reviewing pertinent literature and using the social learning theory developed by Bandura and his associates as a framework, the writer of this thesis identifies and evaluates factors and strategies that may enhance the social/emotional development and status of students who are hard of hearing. Chapter II contains a clarification of terms and issues related to hearing loss and special education. The history of education of students with hearing loss is also traced in Chapter II with a section on Canada. Appendix B complements the discussion with a time line focussing on general societal attitudes and highlights key events or individuals contributing to the education of these students. It provides a quick reference to historical issues and considerations and places education of students with mild to moderate hearing loss in a clearer perspective. Tracing educational trends and attitudes allows educators to plan more effectively for the future. An explanation of the methodology used to complete the review is contained in Chapter III.

The social/emotional development and status of students who are hard of hearing are identified from the literature and are summarized in Chapter IV. The research in this area is evaluated and critiqued. The effects of mild to moderate hearing loss are also discussed. Reasons are identified for the difficulties experienced by these students with recommendations for addressing the existence of negative stereotypical attitudes. Literature sources are specifically critiqued regarding their effectiveness for promoting awareness of the social/emotional needs of these students.

Publications by Bandura and his associates, and/or about their social learning principles, are summarized in Appendix C which complements the contents of Chapter V. Elements of the theory's particular relevance and applicability to students who are hard of hearing are discussed in Chapter V. This research is used as a basis to evaluate existing strategies for promoting the social/emotional development and status of these students. Chapter V thus provides a framework, based on application of social learning principles,

for effective evaluation of instructional and interactional strategies to enhance self-esteem and reduce maladjusted behaviour.

Social skills counselling, teaching strategies, and available programs in the special and regular education literature are reviewed and discussed in Chapter VI, the final chapter. A particular focus is maintained on meeting the needs of the target population of the thesis. Published suggestions are evaluated in terms of their compatibility with the selected social learning theory. Recommendations are ultimately developed for regular classroom teachers to effectively enhance the social/emotional status of students who are hard of hearing, based on the principles developed by Bandura and his associates. Using this theory as a framework, the recommendations provide a tool for educators to evaluate existing strategies and programs for teaching prosocial skills. Future research, as discussed in Chapter VI could include field testing of the theory's effectiveness for students with mild to moderate hearing loss. Implications for practice are also discussed in the final chapter.

An annotated bibliography of selected cited sources completes the thesis. It is an evaluative reference of existing literature relating to the social/emotional development and status of students who are hard of hearing and educated in regular classrooms. It includes key reference words and phrases to assist the reader in identifying the main focus of the item and its relevance to the study. Although some items may have other key words and phrases listed in a data base, they may be excluded here as being beyond the boundaries of the study. Not every text citation is included in this list. The items included were selected based on how extensively they were cited in text, and/or their pertinence to the topic. The items are the data used in this research.

Summary

This chapter provided an introduction to the present study and the issues addressed. After highlighting some specific areas that arose from reviewing the literature, the rationale for undertaking the study was summarized. The chapter concluded with an overview of the contents of the thesis.

II. TERMINOLOGY AND ISSUES[1]

The contents of this chapter clarify and define terms and issues of relevance to the topic of this thesis. Included are definitions of degrees of hearing loss and a discussion of the prevalence of students who are hard of hearing. Appendix A complements the section and summarizes the classification of hearing loss. It also identifies educational and social/emotional implications.

The majority of students with less than severe hearing loss are currently educated in regular classrooms alongside their hearing peers. Therefore, mainstreaming and inclusive education are discussed, as implemented in North America.

The discussion of the rationale supporting regular education for hard of hearing students begins with historical considerations originating in Germany and narrows the focus to educational trends and their justifications in North American in the 1990s. Issues related to the successful education of these students are also addressed.

The final section is an overview of relevant historical perspectives tracing the education of students with hearing loss internationally from early history to the present time. Specific educational themes and trends are identified culminating in a discussion of the evolution of mainstream/inclusive education in North America. The chapter concludes with a summary, discussion, and critique of the literature regarding the education of Canadian students with hearing loss. The historical timeline in Appendix B summarizes in table form the narrative contents of these historical discussions.

Disability, Impairment, and Handicap

In 1993, the World Health Organization (WHO) published a concise clarification of the distinctly different terms of disability, impairment, and handicap. Based on this source,

---

1 A version of this chapter has been published. Hughes, P., & Rodda, M. (1995). Teaching strategies for hard-of-hearing mainstreamed students. *The ACEHI Journal, 21 (2/3)*, 94-108.

these terms are defined in Table 1 using hearing loss examples for clarification. Throughout this thesis, use of these three terms is in accordance with WHO's distinctions.

Table 1
Definitions of Disability, Impairment, and Handicap from a Hearing Loss Perspective

Impairment:	A medical condition resulting from an injury, disease, or other disorder which interferes with the body's structure or function, producing a reduction in physical or mental ability and activity. An impairment is a physical, physiological, or anatomical loss. (e.g., Inability to detect sound)
Disability:	The restriction or loss of a person's functional ability and activity. (e.g., Difficulty perceiving speech)
Handicap:	An environmental and/or social barrier that limits or prevents an individual from fully participating in everyday activities and opportunities; the detrimental effect of the disability on a person's life. (e.g., An activity or place lacking hearing accessibility insofar as the individual cannot participate as effectively as individuals with normal hearing). NOT a condition.

The clinical orientation of most professionals working with individuals with hearing loss is moving "from a diagnostic medical model focussing on impairment to a more rehabilitative model focussing on disability [and handicapping considerations]" (Pichora-Fuller, 1994, p. 210). The goal of addressing the handicapping factors of hearing loss attends to accessibility and the physical, psychological, institutional, and social milieu surrounding a disability (Pichora-Fuller, 1994). This thesis focuses on the disabling and handicapping aspects of less than severe hearing loss.

Hearing Loss

Students who are hard of hearing do not hear in a normal way. Speech and language are acquired through the auditory mode and interpersonal communication is primarily auditory-verbal (Davis, 1991; Laszlo, 1994; Ross, 1990a; Weiss, 1986). These students

use residual hearing to communicate and to be educated. They have more in common with their normally hearing peers than with those who are d/Deaf (defined in the next paragraph) (Ross, 1990a/b).

The term *hard of hearing* is different from the terms *deaf*, *Deaf*, and *hearing impaired.* Clear definitions of terms can be hazy, however, as classification of hearing status may be done from audiological, educational, and/or sociocultural perspectives. A hard of hearing person has a significant hearing loss with or without amplification, wherein use of residual hearing implies aural/oral communication (Alberta Education, 1982, 1995; Bess & Humes, 1995; Carver, 1989; Moores, 1987; Ross, 1990a; Ross, Brackett, & Maxon, 1991; Smith et al. 1995; Warick, 1992, 1992). Conversely, a deaf (lower case 'd') person has an audiological hearing loss that precludes the understanding of speech through the ear alone, with or without a hearing aid who, therefore, relies on visual means for communication. Deaf (with a capital D) is a sociological term applied to individuals who usually have prelingual severe or profound hearing losses and who are part of the "Deaf Community" (Rodda & Grove, 1987). These individuals have a separate cultural and linguistic affiliation and identity with people who are Deaf (Alberta Education, 1995; Baldwin, 1994; Bess & Humes, 1995; Carver, 1989; Laszlo, 1994). The capitalization of Deaf, denoting a cultural affiliation, has been a fairly recent occurrence, more widely accepted since the "Deaf President Now" (DPN) events at Gallaudet University in 1988.

Inconsistencies remain, however, when trying to clarify vocabulary. In this thesis, Deaf is only capitalized when a socio-cultural affiliation is evident, and is not capitalized when an audiological distinction is required.

There has also been very recent discussion by Getty and Hetu (1994) and Laszlo (1994) regarding cultural status for people who are hard of hearing, distinct from both normal hearing and Deaf groups. Comments are inconclusive, however, and remain in the hypothesis stage at this point.

In the past, the term *hearing impaired* was the generally accepted generic term in literature to encapsulate all degrees of hearing loss (Alberta Education, 1995). In common usage the term hearing impaired sometimes refers to individuals who are hard of hearing. Both uses are fallacious and the term is now rejected by both Deaf and hard of hearing consumer organizations and by most professionals in the field. To clarify the audiological categories and their educational and social/emotional implications, the levels of hearing loss classification generally accepted are outlined in Appendix A.

In summary, an individual who is hard of hearing has a mild to moderate hearing loss of somewhere between 25 and 69 dB in the better ear and uses an auditory mode of communication. There is no clear indication in the literature, however, if this classification by degree of hearing loss is based on aided thresholds. The term *Deaf* generally implies severe and profound audiological degrees of hearing impairment with cultural and linguistic associations (Alberta Education, 1982; Moores, 1987; Nix, 1976; Ross, 1990a/b). Smith et al. (1995), however, also include students with severe hearing loss in the hard of hearing category, but specify the use of aural/oral communication as a distinguishing characteristic.

Regardless of the classification system, there is no sharp audiological demarcation between hard of hearing and deaf as it is difficult to identify one specific decibel figure on an audiogram to separate the two degrees of hearing loss. The only really valid measures are by functional and operational choices (Johnson, 1973; Menzel, 1995; Ontario Ministry of Education, 1989; Ross, 1990a) as current intervention practices have shifted more from a medical model to a functional/educational one. Weber (1994) succinctly highlights this by stating: "[that] while [audiological] assessments produce an impressive amount of technical diagnostic information, the most helpful information for teachers is classification of a student with a hearing loss according to level of function" (p. 90). This is evident when appropriate audiological management makes it possible to move some children from an audiological deaf category to a functional hard of hearing category (Bess & Humes, 1995; Johnson, 1973; Ross, 1990a; Stewart, 1984). Affiliation with the Deaf culture exemplifies

the operational and functional choice available to some individuals with hearing loss. Acceptance in the Deaf community is also based on more than a particular decibel number on an audiogram.

For the purposes of this thesis, the two distinct, functional categories of hard of hearing and Deaf are maintained. The terms "hard of hearing" and "hearing impaired", and the presence or absence of a capital "D" in d/Deaf are consistent with the referred time period and/or indicate a clear distinction in meaning. Henceforth, the writer of this thesis addresses the needs of those students with hearing loss, educated in regular classrooms using residual hearing and an oral/aural mode of communication, regardless of their unaided hearing thresholds; in other words, the students who function educationally in a regular classroom as hard of hearing.

In keeping with the current inclusion philosophy wherein educators view their students as students first, and encouraged by persons who are disabled, the present writer places the person before the disability as much as stylistically possible, as in "the student who is hard of hearing". However, due to length constraints or to improve readability, there are occasions where the phrase "the hard of hearing student", for example, is needed.

Prevalence of Students with Mild to Moderate Hearing Loss

Demographic data identifying the numbers of hard of hearing students is conflicting. Flexer, Wray, and Ireland (1989), for example, report that approximately 92-94% of the total hearing-impaired population is functionally hard of hearing, not d/Deaf. However, in Alberta, only 60% of identified school-aged hearing impaired children between 1989 and 1990 were reported to have a mild or moderate hearing loss, that is, they were "hard of hearing" (Alberta Education Response Centre, 1991). On the other hand, some secondary references that do not identify their source suggest that as many as 5% of all school age children have below normal hearing in one or both ears (Bibby, 1993; Clark & Pieper, 1978). Ross (1990a), though, estimated that 16 per 1,000 students were hard of hearing, but indicated that this was likely an underestimation as prevalence increases as the degree of

loss decreases. More recently, the Alberta Education Response Centre (1992) released statistics indicating that 0.12% of all students in grades one to twelve in Alberta are recorded as hard of hearing: 1% of the identified total "mildly/moderately handicapped" population. The majority of studies, however, estimate the prevalence rate of hard of hearing students to be 3% or 30 per 1,000 school children (Alberta Education Response Centre, 1991; Martin, Bernstein, Daly, & Cody, 1988; Ross, 1978; Whorton, 1966).

Regardless of the exact numbers of students with hearing impaired enough to have educational implications, it is reported throughout the literature that the needs of this group are often inadequately met. This concern is discussed in more detail in Chapter IV. As most of these students are educated in regular classrooms, it is essential that their needs are a part of educators' awareness. Also, considering the prevalence of this disability, chances are good that most regular educators will teach a student who is hard of hearing.

Mainstreaming

Integration, the preferred term prior to the mid 1970s (Brown, 1990), evolved into the term *mainstreaming* which became the predominant educational trend of the 1980s (Andrews & Lupart, 1993). Often, the two terms are still used interchangeably. Previously called normalization, mainstreaming essentially refers to the education of students with special needs, including those who are hard of hearing, in classes or schools with regular learners on a full- or part-time basis (Bess & Humes, 1995; Brackett & Maxon, 1986; Bunch, 1987, 1994; Coleman, Eggleston, Collins, Holloway, & Reider, 1975; Orlansky, 1977; Reich, Hambleton, & Klein Houldin, 1977; Rogers, 1994; Special Educational Services, 1986). An assumption of the 1980s' mainstream model was that disabled students would keep up with their peers on assigned academic classroom work (Brackett & Maxon, 1986; Rogers, 1994). Educators recognized the limitations of this philosophy, so the educational trend of the 1990s is moving towards an inclusive approach to teaching students with special needs.

Inclusion

Some researchers, specifically discussing students with hearing loss, distinguish between mainstreaming (the physical presence of such students in a regular classroom) and assimilation (absorption into the cultural tradition of a population or group) (Bunch, 1994; Northcott, 1990; Porter, 1975; Ross, 1976). "An assimilated student [with hearing loss], by general definition, is one whose academic and social skills do not set him apart from his normally hearing peers" (Bunch, 1987, p. 244), and one who "is an accepted and respected member of the group" (Ross, 1990c, p. viii). Smith et al. (1995) briefly define the inclusive approach to educating students with disabilities confirming the previously stated views:

> Inclusion can be defined as the physical, sociological, and instructional inclusion of students with special needs into general education classrooms for the majority of the school day. Inclusion is more than merely physically locating students with special needs in classrooms with their chronological age peers: it requires that they be included with all aspects of the classroom and their educational needs met through services provided within the general education classroom (Smith et al. 1995, p. 13).

Rogers' (1994) discussion of the ongoing special education reform echoes this brief definition.

An absolute definition of what constitutes inclusive education is difficult, as the term is more of a philosophy, attitude, or approach regarding the provision of special education services. However, as outlined in Table 2, no one aspect takes precedence over another.

Table 2
Philosophical Elements of Inclusive Education

• Lifelong learning	• School-home partnership
• Educational quality and equality	• Living and learning in a community
• Independent learning and thinking	• Academic and social competence

Note. From Andrews & Lupart, 1993, p. 5.

Strully and Strully (1989) include more subjective elements in their definition:

> [Inclusion] means the process of making whole, of bringing together all children and

> having all children learn all that they are capable of being. It means helping all people (youth and adults) to recognize and appreciate the unique gifts that each of us has (pp. 62-63).

Rationale For Regular Classroom Education of Students Who Are Hard of Hearing

Samuel Heinicke, of Germany, was one of the founders of the first schools for hearing impaired students. As long ago as the 1700s, he believed that these students must be prepared during their school years for their eventual and inevitable integration into hearing society as adults (McCartney, 1984). The educational trend of the 1990s is in agreement with Heinicke's belief of over 200 years ago and provides a model to achieve his goal. Thus, the philosophy of inclusive education supports the concept that disabled students, including those who are hard of hearing, benefit from being educated to the maximum extent appropriate in the school they would otherwise attend if not disabled, without the requirement of academic achievement consistent with their peers (Andrews & Lupart, 1993; Bunch, 1994; Luetke-Stahlman, 1994; Rogers, 1994; Schattman & Benay, 1992). This arrangement brings support services to the student, rather than the other way around.

Schattman and Benay (1992) summarize the benefits of inclusive education to students with exceptional needs:

> Inclusive education offers the [student] with disabilities the opportunity to be a meaningful member of the community, to have exposure to talented teachers, to develop social relationships with non-handicapped peers, and to have quality educational programs taught in a "normal" school setting (p. 12).

Moreover, Smith et al. (1995) report that students in different special education categories benefit from similar educational approaches. Bunch (1994) extends this view by suggesting that teaching practices effective for special learners are no different from those used with regular students. This is supported by the use of social learning principles for direct teaching of prosocial skills to students with hearing loss. Although social learning theory was not originally developed with special learners in mind, it has direct implications and

applicability to meeting their needs. The tactics have proven effective with disabled and nondisabled students alike (McGinnis, Goldstein, Sprafkin, & Gershaw, 1984).

The basic issue of successful education of students who are hard of hearing is closely linked to the availability of educational placement choices. Smith et al. (1995), though, report that some professionals and parents believe that students with special needs would be better served in segregated settings. Smith et al. (1995) hold the opinion, however, that students with exceptional educational needs are better served in integrated settings. Although they suggest that no significant research exists showing conclusive evidence supporting the superiority of inclusive education, the results of empirical research by Roberts, Pratt, and Leach (1991), as will be discussed later, encourage it for these students. Furthermore, the principles of social learning theory (Bandura, 1972, 1975, 1989; Bandura & Walters, 1963), as will also be discussed in greater depth, imply the effectiveness of regular education for students with special needs. Ross (1990b) supports inclusive education for hard of hearing students specifically, by indicating that it offers a variety of appropriate educational experiences for these students provided interactive communication is possible. Corson and Stuckless (1994) caution, however, that availability of a continuum of placement options, wherein each student is considered on an individual basis, is critical.

A successful mainstream/inclusive experience should consequently provide students who are disabled with more social, educational, and vocational options as they move through post-secondary education and adult life. A successful experience, from a social learning perspective, implies positive social/emotional development, a result of which is enhanced self-efficacy, i.e., beliefs in one's capabilities. Considering preparation for life beyond school graduation with inherent implications for teachers in regular classrooms, Bandura (1989) states:

The more efficacious people judge themselves to be, the wider the range of career

> options they consider appropriate and the better they prepare themselves educationally for different occupational pursuits. Self-limitation of career development arises more from perceived self-inefficacy than from actual inability (pp. 1178-1179).

Mainstreaming/inclusion, in its various forms, therefore, challenges students with impairments, including hearing loss, with the opportunity to become, to the best of their abilities, participating members of society (McCartney, 1984; Schattman & Benay, 1992).

There are additional reasons supporting the premise that regular educational placement is the best option for students who are hard of hearing. For example, it has been shown that psychosocial development depends on language (Andrews & Lupart, 1993; Berry, 1992; Bowyer & Gillies, 1972; Paul & Jackson, 1993; Rodda & Cumming, 1991; Stewart, 1984), and that self-esteem is closely tied to communicative competence (Antia, 1985; Rodda & Cumming, 1991; Paul & Jackson, 1993; Porter, 1975). Hence, principal reasons for educating students with impaired hearing in regular classrooms are to promote their independence, self-efficacy, emotional well-being, development of a positive self-image, socialization, and integration into hearing society (Andrews & Lupart, 1993; Antia, 1985; Bandura, 1989; Brackett, 1990; Brackett & Maxon, 1986; Bunch, 1977; Cohen, 1994; Coleman et al. 1975; Froehlinger, 1981b; Lee & Antia, 1992; McCartney, 1984; Northcott, 1973, 1990; Porter, 1975; Reich et al. 1977; Roberts et al. 1991 as cited by Smith et al. 1995; Ross, 1990b; Stewart, 1984; Stinson & Lang, 1994). Baldwin (1994) highlights the consequences of ignoring this aspect for these students while justifying their inclusion in the social milieu we call schools in the comments:

> Learning does not occur in a vacuum, but results from interactions with others. Without peers with whom the [hard of hearing] child can communicate freely and comfortably, that child may become alienated, withdrawn, or rebellious (Baldwin, 1994, p. 166).

Moreover, Smith et al. (1995) indicate that a major advantage of inclusive education is the opportunity for disabled students to observe and emulate the modeled appropriate behaviour of their non-disabled peers. Further supporting desegregation, they continue that

when students with disabilities are allowed to interact only with each other, imitation of exhibited inappropriate behaviour will occur. Research by Roberts, et al. (1991), which investigated social behaviours of disabled students in integrated settings, substantiates this view. The study concluded that interaction with and social acceptance by non-disabled peers was promoted in mainstream/inclusive environments. The positive effects of peer modeling is also supported by social learning theory. Even before this theory was effectively developed, Anderson (1937) completed a study of how peer models may modify social behaviour (as cited by Bandura & Walters, 1963). It was found that children will match their responses to those presented by their peers. Kazdin (1976) corroborates these findings. The results of all this research support the efficacy of teaching students who are hard of hearing in regular classrooms.

Regular Classroom Education of Students Who are Hard of Hearing

Integration of students with impaired hearing into regular classes was initially attempted, albeit unsuccessfully, in the 19th century. It was not until the early 1960s, however, that the expectations and parameters of mainstreaming were more clearly delineated. This was done initially for students who were developmentally delayed, in response to a more wholistic recognition of their needs. Mainstreaming practices for students with other special needs, including hearing impairments, have evolved in the ensuing years into "inclusive education". Although it is difficult to extrapolate precise figures of the current numbers of students who may be hard of hearing, educational placement of and service for these students are issues of increasing concern to audiologists and educators for a number of reasons, which are highlighted in the remainder of this section.

Students who are hard of hearing do not hear normally, yet they are not d/Deaf. Most understand one-on-one spoken conversations with varying degrees of success. Unlike d/Deaf children, their speech is usually intelligible, even if there are articulation problems.

But, the earlier in childhood hearing loss occurs, the more impact it has on education. Early identification, therefore, is crucial.

Lack of Service

Children with severe and profound hearing loss, with limited response to sound and subsequent language acquisition delays, are more easily recognized and are consequently usually diagnosed earlier. Thus, appearing normal, hard of hearing students may not receive needed services (Alberta Education Response Centre, 1991; Antia, 1985; Berg, 1986; Blair & Berg, 1982 as cited by Martin et al. 1988; DeConde, 1984; Flexer, et al. 1989; Moores, 1987; Paul & Jackson, 1993; Ross, 1990a), although the majority of them are being educated in regular classrooms (Alberta Education Response Centre, 1991; Allen & Osborn, 1984; Warick, 1992, 1994). Berg (1986), for instance, postulates that only about 1% of students who are hard of hearing receive the assistance necessary for success. Further supporting the premise that these students appear normal and are consequently lacking services, Sontag, Smith, and Certo (1977), report that 90% of deaf students receive special services, as opposed to only 20% of students who are hard of hearing.

Impact of Mild to Moderate Hearing Loss

Despite the lack of services, research indicates that hearing loss, even mild to moderate, may negatively impact the academic achievement, self image, emotional stability, attention, and behaviour of the affected student (Berry, 1992; Bess & Humes, 1995; DeConde, 1984; Harvey, 1989; Reich et al. 1977; Rodda & Grove, 1987; Schirmer, 1994; Smith et al. 1995; van den Horst, 1971, as cited in Reich et al. 1977). Students spend at least 45% of their school day in the regular classroom engaged in listening activities (Berg, 1987) and adequate hearing is the key to good knowledge of a spoken native language–the abilities to speak and read well, and to understand abstract concepts. Children with mild or moderate loss may hear enough to develop language at a slower rate than their hearing peers and/or may be socially maladjusted or be misdiagnosed as intellectually deficient (Alberta Education, 1982; Antia, 1985; Rodda & Grove, 1987; Smith et al. 1995; Whorton, 1966).

Therefore, hard of hearing students may easily become misfits–hearing too much for special placements in schools for the Deaf, but too little to make the academic progress in regular public schools of which they are intellectually capable (Whorton, 1966). Children with mild to moderate hearing loss, nonetheless, acquire language and learn to read in the same predictable patterns as their normally hearing peers. Language acquisition is delayed, not deviant (Kolzak, 1983; Robertson & Flexer, 1991). Furthermore, language is necessary for healthy social/emotional development, so appropriate interactions with hearing peers is a goal of and key reason for educating students who are hard of hearing in regular classrooms.

Factors Affecting Successful Education of Students Who are Hard of Hearing

Some researchers maintain that the terms deaf and hard of hearing, alone, are diagnostically and psychologically unsound as predictors of how well a particular individual with hearing loss will do in school (Brooks, 1981; Northcott, 1973). Academic and/or social/emotional difficulties are not necessarily "given" for all students with impaired hearing (Ross, Brackett, & Maxon, 1982). Nonetheless, it is well-documented that the very nature of a hearing loss places many of these students at risk, as their academic and social successes in a regular classroom depend on many factors. Such considerations include the characteristics of the hearing loss itself as well as personal attributes including academic skills and cognitive capacities.

The environment in which a hard of hearing student is placed must also be taken into account when predicting a successful educational experience in a mainstream/inclusive setting. The effect of language complexity, dialectical or poorly articulated speech, distance from the speech source, and poor room acoustics (all of which may minimally interfere with the speech comprehension for normally hearing students) will often have a negative effect upon the ability of students who are hard of hearing to understand spoken messages. The result is that although they may "hear" in almost all situations, they cannot "understand" in many of them (Ross, 1990a), even with the many options available to

assist in difficult listening situations. Impaired understanding consequently impacts academic and social learning. When predicting and/or evaluating the success of an educational experience for these students, parents and educators must recognize their mask of normalcy, yet not forget their unique needs.

Individual Differences

Educators are succinctly reminded to put the person before the disability because, as Ross (1990a) indicated, one must remember that "beyond the categor[y] of *hard of hearing*...awaits a human being who is not likely to fit neatly into some preconceived description" (Ross, 1990a, p. 7). There are wide variations between individuals who are hard of hearing of which professionals need to be aware (Davis, Elfenbein, Schum, & Bentler, 1986). As with all students, they differ in experience, background, and attributes. More to the point, though, they also differ markedly in what defines them as being hard of hearing: i. e., the type, degree, and configuration of their hearing losses. For example, students with unilateral hearing impairments experience different difficulties from students with bilateral hearing losses. Also, students with sloping audiometric configurations present different academic and social behaviors than students with flat audiometric configurations, even though both may have the same average hearing loss (Berg, Blair, Viehweg, & Wilson-Vlotman, 1986; Martin et al. 1988; Ross, 1990a).

Although the amount of residual hearing is a variable for predicting the academic success of a student with hearing loss, it is not the sole one. An individual's mainstreaming experience may also be affected by: the nature of the hearing loss; whether the hearing loss is congenital or adventitious; age of diagnosis; intelligence; reading and arithmetic skills; visual motor skills; memory-visual/auditory; written language; speech reception (quiet/noise); comprehension (oral and written); expression; speech production intelligibility; attention; social/emotional factors; problem solving; organization; auditory discrimination; use of amplification (willingness to wear and maintain personal and classroom amplification); support variables; and existence of secondary handicapping

conditions (Berg, 1970a; Brackett, 1981; Bunch, 1987; DeConde, 1984; Harvey, 1989; Heller, 1990; Griffing, 1970; Kolzak, 1983; Nober, 1981; Orlansky, 1977; Rodda & Grove, 1987). Other important concerns include the effectiveness of early habilitation, the personal capacities or experiences, as well as the socioeconomic status of the individual (Ross, 1990a).

It must be understood that not every child with mild or even moderate hearing loss will be handicapped communicatively or educationally by the hearing loss. Each child must be evaluated and managed on an individual basis (Orlansky, 1977; Ross, 1990a; Weber, 1994). "What can be asserted is that, based on research, children with even minimal, fluctuating, unilateral, and high frequency losses are "at risk" for possible deleterious consequences of the hearing losses and must be monitored accordingly" (Ross, 1990a, pp. 6-7). The results of an extensive empirical study by Davis et al. (1986) confirm this claim.

Conductive Hearing Losses. An example of individual differences found among students who are hard of hearing are those who experience mild to moderate fluctuating conductive hearing losses, which are often undiagnosed. These students may not even be considered hard of hearing by most people. However, frequent upper respiratory infections and/or severe allergies in children lead to fluid in the middle ear (Giebink, 1990). Otitis media, or middle ear infection, may result, causing a conductive hearing loss. Consequently, a great deal of what is going on in the classroom and other situations, will be missed by these students when they have a hearing loss. This is an area of concern as some sources indicate that intermittent hearing impairments over several years can often result in delays in academic achievement and/or communication skills (Alberta Education, 1982; Bess & Humes, 1995; Ross, 1990a). Early onset otitis media may therefore have significant educational implications although there is a lack of empirical data to definitively support this. The reader is referred further to Maxon and Brackett (1992, chapter 9) for a more extensive discussion of the implications of conductive, mild, and unilateral hearing losses.

Classroom Communication Considerations. As will be discussed in Chapter IV, the student's primary problems stem from the communication difficulties resulting from hearing loss. Communication affects all aspects of a student's education–academic and vocational success, social interaction, and emotional well-being. It is, therefore, of paramount importance to consider the variables affecting successful classroom communication. These variables include: classroom arrangement and environmental factors (noise, reverberation, and distance; light; seating location); student factors (the individual's communication posture, skills, attitude, and fluency); teacher factors (level of experience and skill as well as expectations, attitude, and individual teaching style); peer factors (acceptance levels, communication styles, expectations, and interactive exchanges); teacher and curriculum adaptations (strategies and modifications to improve communication must attend to the areas of speech reception, speech production, vocabulary, content, form, and use); student responsibilities and accountability (students must develop abilities for adapting to their listening environment and to their communication partners) (Alberta Education, 1995; Berry, 1992; Brackett, 1990; Flexer et al. 1989; Heller, 1990; Kolzak, 1983). Lists of specific strategies to enhance communication may be found in Hughes and Rodda (1995).

Historical Perspectives

According to Gearheart et al. (1992), most early references to individuals with disabilities "make it difficult to determine whether those referred to were mentally retarded, mentally ill, or deaf and unable to communicate" (p. 6). Thus, early historical comments regarding the education of students who are hard of hearing are also not available. Nonetheless, this writer proposes that to evaluate present and future trends in terms of societal attitudes and educational practices for students with disabilities, including those who are hard of hearing, it is valid to consider previous realities. The following statement effectively reflects this point:

The ultimate rationale for quality education of students in an integrated setting is not

> based on research, law or pedagogy, but on values. "What kinds of people are we? What kind of society do we wish to develop? What values do we honor?" (Gartner & Lipsky, 1987, as cited by Strully & Strully, 1989, p. 62).

Therefore, as societal attitudes of different eras have varied regarding perceptions of individuals with disabilities, an historical account of educational trends leading to present day practices for students who are hard of hearing is presented. The time line in Appendix B summarizes the historical key periods, events, persons, and influences significant to the education of individuals with hearing loss. It concludes with the current trend of inclusive education for students with disabilities. The table was developed to succinctly trace notable world-wide activities from the beginning of formal education in 2500 B.C. through to the 1990s.

General Observations

Before discussing details, a number of generalities can be identified. First, no systematic attempts to teach individuals with hearing loss occurred prior to the 16th century. This lack can be attributed to two things: i) most societies at that time did not value education, as evidenced by the high illiteracy rate; and ii) societal attitudes towards anyone with an impairment, i.e., primitive and ancient societies wanted little to do with disabled persons. The Ancient Greeks, for example, abandoned their weak and disabled children in clay vessels.

Another general observation that may be made of the educational history of students with hearing loss is that prior to the 19th century degrees of hearing loss could not be determined. Consequently, no information is available until that time specific to students with mild or moderate losses. This is clarified by the fact that it was only during the 1800s that the tuning fork was developed. Although this instrument was initially used for testing refinement in making steel, in 1863 Herman von Helmholtz developed a theory of hearing using tuning forks. He attempted to determine that hearing occurs as a response to resonators in the inner ear (Giangreco & Giangreco, 1970). For the first time in history, degrees of hearing acuity were recognized. This lead to a distinction between individuals

who were hard of hearing, and those who were deaf (Giangreco & Giangreco, 1970) although the distinction has not been consistently maintained since that time.

On a somewhat less scientific basis, another discovery was made just prior to the innovative use of the tuning fork. A French physician, named Itard, realized while working with deaf students, that many of the students had sufficient residual hearing to benefit from auditory stimulation and training, leading to the ability to hear and understand words (Oyer, 1966). Nonetheless, it was not until the 1920s with the introduction of electronic amplifying devices, that many deaf students were appropriately and effectively reclassified as being functionally hard of hearing (Berg, 1970a). Real interest in aural rehabilitation of this group, however, only began in earnest after World War II in response to the number of veterans who became hard of hearing during their military service (Oyer, 1966).

Speech Focus. From the above-noted information, it is possible to conclude as to why literature sources discussing education of students with impaired hearing prior to the 19th century report that educational efforts were directed towards individuals lacking speech. If no clinical tool was available to distinguish between the degrees of hearing loss, then obviously educational intervention, or lack thereof, had to be based on what was measurable and/or observable–specifically, the lack of speech. One can only surmise, then, about the fate of those who today might be considered hard of hearing. Because of the importance ancient societies attached to the spoken word, articulation difficulties, coupled with language delays and other related problems, would likely also set apart those with less than severe hearing loss.

Specific references to persons with impaired hearing in ancient eras show no differentiation between individuals who today would be classified as deaf and those who would be hard of hearing. Extent of the handicap instead seemed to depend on the individual's ability to speak which identified man's superiority over lower forms of animals, as supported by the biblical quote, "In the beginning was the Word" (John 1:1). Little attention was given to "mute" individuals as they were considered to be less than

human. Thus, compounding the situation, religion played an important role in most aspects of early societies. Early interest in persons with impaired hearing was consequently concerned with theological and legal matters (as both were closely connected), rather than medical or educational, especially as most people were illiterate anyway (Moores, 1987). In European and American societies, for example, where great emphasis was (and still is) placed on the spoken word in both religious and intellectual arenas, individuals with impaired hearing were at a greater disadvantage, not because of their hearing loss, but because of their secondary characteristic of lacking speech (Moores, 1987). This disadvantage was exacerbated by the fact that some words were attributed magical and mystical powers–an attitude that continued well into Medieval times. For example, people who could not speak, primarily due to significant hearing loss, could not receive Communion because of their inability to confess their sins (Moores, 1987). Obviously, education was not considered an issue, either.

Educational Trends. Although geological discoveries attribute the introduction of formal education to Mesopotamia and Egypt in 2500 B.C. (Moores, 1987), this interest was not generalized throughout the world. Not until much later, as more humane considerations were subsequently given to individuals with apparent handicaps, such as those with impaired hearing, did education of these children begin.

Educational focus, however, was still directed more towards individuals without speech rather than because of identified hearing loss. In about 350 B.C., the Greek philosopher, Aristotle, for example, considered control over the tongue as the initial issue of educational importance for these individuals (Thompson, 1910 as cited in McCartney, 1984). This focus apparently remained for a long period of time, as Juan Martin Pablo Bonet of Spain later published the first book about educating these students in 1620 entitled *Simplification of the Letters of the Alphabet and Method of Teaching Deaf Mutes to Speak* (Best, 1943 as cited in McCartney, 1984; Moores, 1987).

There was some short-lived progress in educating students with special needs during the post-Renaissance era in Europe. This was primarily the result of efforts by individuals, rather than because of any shift in societal attitudes, however. The Spanish monk, Ponce de Leon (1520-1582), for example, considered to be the first teacher of the deaf, taught these children to speak and read. Later, the British philosopher, John Locke (1632-1708), helped to shift attitudes towards disabled children again. He presented a philosophy that children are born with a *tabula rasa* (blank slate). This opposed the prevalent thinking that children were born with innate characteristics imprinted by uncontrollable forces such as God, the devil, or nature. Supported by other European scholars such as Voltaire, Rousseau, and Goethe, the belief that disabled people were "the product of some Great Plan" (Weber, 1994, p. 6) slowly eroded, although in no global nor pragmatic fashion.

The 20th century saw additional shifts in societal attitudes towards persons with disabilities. By the end of the first World War, for example, humanitarian principles guided public attitude although with more of a custodial focus where the prevailing thought was one of "looking after the less fortunate" (Weber, 1994, p. 7). This attitude remained and special education from about 1950 to about 1970 occurred primarily in self-contained classrooms (Smith et al. 1995). The next shift, beginning in the 1960s, was from "socially responsible custodial care…to one of social integration and universal education" (Weber, 1994, p. 7). This attitude change in the 1960s and 1970s was in response to educators' abandonment of the medical model which focussed on what was wrong, in favour of an educational and functional model, which shifted to viewing students' strengths (Bunch, 1994; Weber, 1994).

Evolution of Mainstream/Inclusive Education

The first recorded reference to educating students with hearing loss alongside their hearing peers has been attributed to both 1815 (Ross, 1990c) and to 1821 (McCartney, 1984; Moores, 1987; Nix, 1982). The exact date is not as significant as recognizing that, although 19th century attempts at mainstreaming these students were unsuccessful, it is

obviously not a new concept. The term was adopted more consistently, however, after Reynolds (1962) presented a "continuum of placements" for students with special needs in the United States (cited in Brown, 1990). Reynolds' proposal was used initially with respect to developmentally delayed students, as there was evidence that segregation had deleterious effects on their social and educational performance. Since then, several authors have presented a variety of models and possibilities for meeting the educational needs of special student populations, including the hard of hearing. Mainstreaming has been subsequently interpreted as a goal, a concept, or a philosophy (Brackett & Maxon, 1986; Brown, 1990; Froehlinger, 1981b; Northcott, 1990; Special Educational Services, 1986; Stewart, 1984; Weber, 1994).

20th Century Reasons for Regular Education of Students with Hearing Loss. Students with impaired hearing have been traditionally educated in residential schools for the Deaf (Ross, Brackett, & Maxon, 1982). The present availability of placement with normally hearing peers has arisen in response to three major activities. First, the human/civil rights movement was predicated upon the concept of equal education for all students (Andrews & Lupart, 1993; Bunch, 1994; Rogers, 1994; Stewart, 1984). Secondly, deinstitutionalization responded to the general feeling that segregation from their families and from society would negatively affect the social/emotional development of students with special educational needs (Andrews & Lupart, 1993; Schattman & Benay, 1992; Stewart, 1984). The move toward desegregation in general began in the United States in 1954 when a Supreme Court's ruling abolished school segregation of Black students (Schattman & Benay, 1992; Smith et al. 1995). Desegregation gained support in the 1960s with a reduction in faith in testing, especially of intelligence. Also, the eugenics movement was in decline. This movement had previously supported institutionalization of disabled persons for their custodial care as well as for society's protections against genetic contamination (Weber, 1994). Thirdly and finally, improvements in hearing aid technology, particularly since World War II, have provided many deaf individuals with the

ability to understand speech through use of residual hearing and consequently to be reclassified as functionally hard of hearing (Stewart, 1984). The introduction of transistors, stronger amplification, the more recent applications of computer technology, and the progressing medical evolution of the cochlear implant continue to have tremendous impacts on the educational options for students with hearing loss.

Public Law 94-142. The major impetus directing current practices of regular classroom education of students who are hard of hearing, however, was the passing of the *Education for All Handicapped Children Act* of 1975 in the United States (National Information Center on Deafness [NICD], 1991; Schattman & Benay, 1992), which later became known as the *Individuals with Disabilities Education Act* (IDEA) in 1990 (Bess & Humes, 1995; Martin et al. 1988; NICD, 1991; Schattman & Benay, 1992; Smith et al. 1995; Weber, 1994). This American law, more commonly referred to as Public Law (PL) 94-142, clarifies the right of students with special educational needs to a "free appropriate" education in the "least restrictive environment", allowing as much meaningful interaction with their nondisabled classmates as possible. Although the term "mainstreaming" never actually appears in the law's text (Schattman & Benay, 1992), Table 3 briefly outlines its four major functions.

Table 3

The Four Main Functions of PL 94-142

- Zero reject, which guarantees that special education programming is available to all students requiring it.
- Nondiscriminatory evaluation and individualized education to assure that appropriate and fair decision-making is included in the provision of special education programming. The development of an individualized educational plan (IEP) or individualized program plan (IPP) reflects this. The IEP/IPP includes names of key personnel; basic demographic data, the student's level of educational performance; learning and behaviour goals and objectives; key strategies; important dates, including duration of the IEP/IPP; extent of special and regular education; as well as regular evaluation procedures. (For more pointed information, Nober (1981) presents an extensive discussion on IEP/IPP development specifically for students who are hard of hearing. Alberta Education (1995) also provides a form for file contents and IPP development for students with hearing loss.)
- Due process to establish clear and consistent management, auditing requirements, and special education procedures.
- American Federal financial assistance for state and local governments to implement special education services.

Note. Adapted from Andrews & Lupart, 1993; Bess & Humes, 1995; Froehlinger, 1981a; Froehlinger & Bryant, 1981; Schattman & Benay, 1992; Weber, 1994.

Building upon the essence of this law, the educational trend in North America is currently shifting away from the traditional mainstreaming mentality into a more inclusive approach. Rogers (1994) and Kirchner (1994) both clarify that inclusion reconceptualizes the delivery of special education services to meet individuals' needs. The intention is to coordinate resources, not to eliminate special education costs. This progressive change is summarized from the literature in Table 4.

Table 4

Summary of Progressive Change of Special Education

- From segregation to integration to inclusion.
- From selection/rejection placement decision making to a more ecological approach using the intuition, knowledge, and experience of teachers, teaching assistants, and parents. Previously, tests labelled and categorized students and provided special class placement if all the criteria were met. Otherwise, they were taught in regular classes. More dialogue is now involved in deciding placement.
- From dichotomous choices of either special education or regular classroom placements to a continuum.
- From distal to proximal educational placements, reflecting the change from teaching students with special needs in the farthest location from the mainstream to the closest to the mainstream.

Note. Adapted from Andrews & Lupart, 1993; Bunch, 1994; Smith et al. 1995; Weber, 1994.

As PL 94-142 is applied to students requiring special education (Bess & Humes, 1995), and its intention has been adopted outside of the United States, hard of hearing students in Canada and the U. S. are now provided with a variety of educational choices. Options range from full-time placement with normally hearing peers to full-time placement in segregated schools, with consideration for many variations within these models (Allen, 1992; Bess & Humes, 1995; Luetke-Stahlman, 1994; McCartney, 1984; Moores, Cerney, & Garcia, 1990; Reich et al. 1977; Stewart, 1984). To clarify, the American 1975 *Education for all Handicapped Children Act,* the precursor to PL 94-142, defines special education as: "specially designed instruction…to meet the unique needs of a handicapped child…" (as cited by Tucker, 1984, p. 54). Current North American educators, supporting inclusive education for students with disabilities, hold this definition still to be true. The present educational trend encourages regular and special educators to consider alternative

service delivery models to best meet the unique academic, social, and emotional needs of these students.

Education of Canadian Students with Hearing Loss

Without a doubt, there are very few articles describing the historical developments of Canadian education for students with hearing loss. Key articles include those by Winzer (1979, 1980a/b/c/d), written in five sections in the ACEHI Journal over a two year period. Building upon these articles, Clarke and Winzer later collaborated in 1983 to provide an exhaustive updated description and explanation. In the same issue of the ACEHI Journal, Beggs (1983) also includes a summative overview of the Canadian situation, incorporating and comparing trends in other disciplines of Special Education across the country. Bibby (1994) completes the group of articles by again updating the information with challenges facing educators of Deaf students in the 1990s. Further clarifying the Canadian situation, both historically and currently, Bibby (1994) discusses the impact of Canada's geography and demography on the education of students who are Deaf.

Critique of the Literature. Disappointingly, other than a couple of specific references, all these articles have minimal information regarding students who are hard of hearing. Bibby (1994), in particular, seems to combine the two groups together in one phrase, with little acknowledgment of their different needs. Conversely, Clarke and Winzer (1983), although apparently intending to discuss only deaf students, do indeed differentiate between the two groups and indicate some of the concerns unique to students who are hard of hearing.

As discussed further in Chapter IV, this exemplifies and typifies the challenges faced in researching issues relating to students who are hard of hearing. Clarification of terms has not been an issue for most researchers, even in articles published as recently as 1994. As noted earlier, however, investigation of historical material indicates that there was little awareness of degrees of hearing loss prior to the 19th century. Consequently, awareness of differing needs is a recent phenomenon. Nonetheless, as hard of hearing students were not

easily recognized, one can assume that some of these students were educated as though they were hearing, and we can only surmise as to their success. Other students, with more severe hearing losses, were presumably educated as though they were deaf. Perhaps, with some residual hearing, these would be among the high-achieving deaf students. As inclusive education is intended for all students with special educational needs, including hearing loss, tracking education of the deaf or "hearing impaired", as it may relate to students who are hard of hearing, is therefore not unwarranted.

Early Schools. Canada's first formal special education project of any kind was the first school for the deaf and partially deaf, opened in Champlain, Quebec in 1831 by Ronald McDonald, an editor of the Quebec Gazette and also a lawyer (Beggs, 1983; Moores, 1987; Weber, 1994; Winzer, 1980, 1983). This endeavour closed five years later, however, due to lack of funds. The first permanent school for the deaf in Canada was established in 1856 in Halifax, Nova Scotia, by a tailor, William Grey, who was also a graduate of the Braidwood Academy of Edinburgh (Beggs, 1983; Winzer, 1979, 1980).

Educational Trends. Since then, Canadian educators have held similar attitudes and followed similar trends as outlined in previous sections. The change to services available to Canadian students with special educational needs has been encouraged by similar changes in the United States. Both countries have followed similar patterns in their progressive movement toward an inclusive philosophy. Some key concepts of the American PL 94-142 have been considered and incorporated into provincial legislation, for example (Andrews & Lupart, 1993; Weber, 1994). Differing from the United States, though, Canada's educational system is not federally driven, so each Canadian province and territory is independently responsible for determining educational policy. The *British North America (BNA) Act*, patriated in the 1982 Constitution Act does, however, specify some constitutional provisions "concerning denominational, separate, or alternative schools, as well as minority language educational rights" (Andrews & Lupart, 1993, p. 46). Also, lacking federal legislation enforcement as in the U. S., Canada's special education reform

has been in response to parental and professional pressure as well as to litigation and positive court rulings (Andrews & Lupart, 1993; Winzer, 1983). These activities have been supported by the 1982 *Canadian Charter of Rights and Freedoms* (Weber, 1994). Consequently, all provinces and territories had full special education programs provided in regular schools by the end of the 1980s. Most areas have mandatory legislation, while others rely on policy to ensure provision of special education service within their school jurisdictions (Weber, 1994). Andrews and Lupart (1993) provide a more comprehensive and detailed account of the Canadian situation, particularly delineating specific provisions of each province and territory.

Summary

The purpose of this chapter was to clarify terms and issues related to hearing loss and special education. This chapter provides an overview of issues related to the education of students who are hard of hearing and clearly delineates the subjects of the study. The background information provides a basic introduction to some of the considerations relevant to their education.

Appendix A summarizes the categories of hearing loss with attention to social/emotional and educational implications. The international history of education of students with hearing loss was narratively traced in this chapter and then complementarily summarized in Appendix B. The discussion of 20th century education of these students focussed on activities and trends in North America. However, as the present thesis was written in Canada with recommendations formulated with Canadian educators in mind, a section specifically discussing this country's special educational situation was also included.

III. METHODOLOGY

This study was undertaken to: i) identify issues related to the social/emotional development and status of students with mild to moderate hearing losses educated in regular classrooms; ii) provide recommendations for practice; and iii) provide a basis for future research. A framework for enhancing the social/emotional development and status of these students was ultimately identified as being needed. The social learning theory of Bandura and his associates was subsequently selected because of: i) its emphasis on the reciprocal causality of observational learning and observer characteristics which effectively take hearing loss into account, and ii) the importance placed on self-efficacy. Chapter IV discusses deprecating beliefs in one's capabilities as common to many students with hearing loss.

Research Design

The present study is a literature review and, therefore, the research design more closely aligns with a qualitative paradigm than with quantitative principles (Fraenkel & Wallen, 1993). Qualitative research refers to "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification" (Strauss & Corbin, 1990, p. 17). One form of qualitative research is nonparticipant observation which may employ the technique of analyzing literature. This method was used in the present study to review quantitatively or qualitatively derived findings in existing literature.

Bogdan and Biklen (1992) assert that qualitative researchers construct a picture as parts are collected and examined. The research question posed at the onset of the study sought to identify what the literature (both qualitative and quantitative research findings as well as opinion papers) discusses regarding the social/emotional development and status of hard of hearing students in mainstream classrooms. Findings in the literature suggest that these students may be at risk for social/emotional difficulties. The present writer propose that a

framework could be effective for addressing their needs. The social learning principles proposed by Bandura and his associates were selected as a base for developing such a framework. Stated in qualitative terms, an intent of the present researcher was to extend the already existing theory by applying it to hard of hearing students.

Rationale for Reviewing Literature

Strauss and Corbin (1990) provide a rationale for conducting a review of literature:

> [Literature] enables the user to identify previous research in an area, as well as to discover where there are gaps in understanding. It also suggests theoretical and conceptual frameworks that might be used to guide [further] research projects and to interpret their findings (p. 49).

Principal reasons for reviewing literature are:

- to sample existing (current) opinions and hypotheses about the study;
- to determine what the interest is;
- to determine the existing knowledge (what kind of research has already been done?);
- to place the research in historical and associative perspective:
    - to develop rationale for the study;
    - to form significance of the study;
    - to interpret the study in a framework of existing knowledge;
- to define and limit the problem;
- to select promising matters and approaches;
- to find out recommendations for future research;
- to avoid unintentional duplication of others' work

Implications of Reviewing Literature

The categories, hypotheses, and so forth, generated by the literature, as identified in Chapter I, provide a base for further research. Strauss and Corbin (1990) emphasize the importance of verifying the results and recommendations developed from a review of literature against primary data. They summarize and justify this process by stating that "the

interplay of reading the literature and doing an analysis of it, then moving out into the field to verify it against reality can yield an integrated picture and enhance the conceptual richness of the theory" (p. 55). This statement confirms the present writer's earlier suggestion that this study provides a framework and basis for future research.

Literature Selection or Sampling Methods

The literature related to the topic of this thesis is extensive and wide ranging. Delineation of relevant parameters was, therefore, necessary prior to and during the survey. As the publications are the data and essentially comprise the subjects of the study, comments regarding sampling strategies are relevant. Sandelowski (1986) summarizes the rationale and procedures that were followed in the present study:

> Sampling [in qualitative research] is often theoretical rather than statistical. Subjects are initially selected because they can illuminate the phenomenon being studied, but the continued selection of subjects is related to the findings that emerge in the course of the study. Sample size cannot, therefore, be predetermined because it is dependent on the nature of the data collected and where those data take the investigator (p. 30).

Nonetheless, it remains the responsibility of the researcher to establish the typicality or atypicality of the data in enough breadth to confirm the representativeness of the data (Patton, 1990; Sandelowski, 1986).

Parameters for Selection

The steps for conducting this literature review were completed following the suggestions put forth by Fraenkel and Wallen (1993). They propose that after the research question has been defined as clearly as possible, secondary sources, such as textbooks, are perused to formulate pertinent search terms. After completing these procedures, they recommend that general references, such as indexes and abstracts be searched for relevant primary sources. For the present thesis, the following guidelines were used to limit the selection of material:

- Primary sources were used as much as possible.
- Because of the present writer's focus on current educational trends and

because of advancing knowledge regarding communication enhancement, literature published prior to 1970 was not included unless it seemed particularly relevant .

- Except for historical considerations, the search was limited to material focussing on school-aged students who are functionally hard of hearing and educated in regular classroom settings. Nonetheless, where synonymous terms such as *partial hearing*, *partially deaf*, and *partially hearing impaired* were used, as in the earlier and British literature for example, the document was also reviewed. Publications using the term *hearing impaired* or equivalent derivatives were also reviewed if the focus pertained more to students who are hard of hearing.
- The previous three points were considered in conjunction with searches using terms related to psychosocial or social/emotional issues.
- Information related to social learning theory, its principles, and applications was limited to research by Bandura and his associates and included secondary sources critiquing this theory.

Sources Searched. Following the previously stated guidelines, the literature survey utilized computerized bibliographic searches of various on-line data bases available predominantly on the University of Alberta library network. The Clearinghouse data base of the *Canadian Hard of Hearing Association*, housed in Ottawa, was also a valuable source of material. Approximately 400 citations were obtained. Many of these citations were rejected because they were beyond the study's parameters as specified in the previous section. Reference lists of remaining articles were also searched for other relevant primary sources.

Meta-Analysis: Evaluation of Literature

The summaries, evaluations, and critiques of existing research were completed using qualitative and quantitative principles. Evaluation of each research report was based on its adherence to the methodological paradigm to which it subscribed by assessing one or all of the following components:

- sampling procedures and participant selection, as well as the generalizability or transferability of results;

- instrumentation;
- descriptive and inferential data analysis, including techniques, presentation, and interpretation of results;
- evaluation of procedures and of any threats to internal validity of the study including the researcher's awareness of such;
- appropriateness of research design and methodology; and
- variables used

(Guba, 1981; Fraenkel & Wallen, 1993; Lincoln & Guba, 1985; Sandelowski, 1986).

To draw conclusions from existing studies, critical review of articles also considered the following points:

- purpose/justification;
- definitions considerations including whether or not terms were, or should have been, appropriately included;
- inclusion of prior research to support any contentions made;
- appropriateness of the presence, or not, of a clearly stated hypothesis;
- effectiveness, relevance, and logic of the discussion of the study's results;
- peripheral areas that helped to develop the initial research; and
- why a particular study would be necessary or relevant to the present study

(Fraenkel & Wallen, 1993).

Recording Data

The present researcher adhered to the qualitative principle of presenting "an accurate description of what is being studied, though not necessarily all of the data that have been studied" (Strauss & Corbin, 1990, p. 22). Therefore, accurate description included selection and interpretation in the reducing and ordering of the material (Strauss & Corbin, 1990).

Trustworthiness or Credibility

Several writers discuss aspects of maintaining rigor and trustworthiness in qualitative research and compare these with terms used in quantitative research. For example, it is

suggested that credibility be the criterion against which the truth value of qualitative research be evaluated (Guba, 1981, 1990; Lincoln & Guba, 1985; Patton, 1990; Sandelowski, 1986). Trustworthiness of a qualitative study depends, in part, on the credibility of the researcher. The following sections discuss the theoretical base of this element and the present writer's subjectivity.

Theoretical Sensitivity

Strauss and Corbin (1990) define theoretical sensitivity as "the ability to recognize what is important in data and to give it meaning" (p. 46). This refers to a personal quality of the researcher. The authors identify four main sources of theoretical sensitivity. The first three relate to theoretical sensitivity "derived from the background that the analyst brings to the research situation" (Strauss & Corbin, 1990, p. 43). These sources are:

- The researcher's familiarity with literature publications provides a background of information that sensitizes the researcher "to what is going on with the phenomenon [under study]" (p. 42).
- Professional experience or practice in the field under study enhances the researcher's "knowledge base and insight available to draw upon in the research (p. 42).
- Personal experience is another source of theoretical sensitivity. Empathy for the participants' experiences or personal identification with the data can provide "a basis for making comparisons that in turn stimulate the generation of potentially relevant concepts and their relationships [pertaining to the phenomenon under study]" (p. 43).
- Theoretical sensitivity is also acquired during the analytic process itself. Insight and understanding about a phenomenon increase as the researcher interacts with the data.

Bracketing. Sandelowski (1986) affirms that "credibility is enhanced when investigators describe and interpret their own behavior and experiences as researchers in relation to the behavior and experiences of subjects" (p. 30). Bracketing is a qualitative research term referring to the researcher's process of identifying and bringing to conscious awareness what expectations and understandings are brought to the research: the

researcher's subjectivity (Patton, 1990). It includes elucidation of the influences, biases, presuppositions, issues, and thoughts of the researcher (Patton, 1990). These considerations arise from the sources of what Strauss and Corbin (1990) call theoretical sensitivity. A study's credibility may be judged more effectively and efficiently by the reader who has an understanding and awareness of the researcher's background and personal experiences. Bracketing of the present writer's theoretical sensitivity is therefore provided in the following sections.

Personal Background. I have a severe, progressive, sensorineural, bilateral, adventitious hearing loss. My hearing was not noticeably affected to the point of interference with my daily life until the late 1980s, long past my student days. I did, however, purchase my first hearing aid upon starting my undergraduate University education. Having grown and been educated as a hearing student, I was particularly sensitive to the communication and social/emotional differences after wearing a hearing aid and then subsequently using assistive listening systems. As a researcher, I bring these awarenesses to my study. I have not only the academic, objective knowledge of an educator, but have also experienced the subjective feelings of frustration, depression, isolation, and other characteristics similar to those identified in the literature as commonly experienced by students with hearing loss.

Genesis of the Study. As a student who is hard of hearing, I have a personal interest in the experiences of similar students. As a teacher-in-training of these students, I also have a professional interest in their experiences. To be an effective itinerant, consultant, or regular classroom teacher of hard of hearing students, it is imperative that I more clearly understand their experiences. I have taught such students in regular classrooms during my years as a classroom teacher and have experienced my own challenges trying to cope both as teacher and as student.

Present Knowledge. Having completed the course requirements for a Masters degree in Deafness Studies (Education), I have had the opportunity to investigate the

subject of this thesis at great length from various angles. I have done considerable reading on issues related to students with hearing loss, have written papers, and have made numerous presentations on the subject. I have professional experience with clients as research and clinical assistant to the director of the *Western Canadian Centre of Studies in Deafness* at the University of Alberta and through related volunteer work on numerous boards and committees addressing issues relating to individuals with hearing loss. I am a strong advocate for the needs of the hard of hearing consumer.

Summary

The contents of this chapter identify the research design of this literature review. Reasons for selecting the methodology precede the discussions of techniques employed. Theoretical rationales justify the methodological elements. As disclosure of the researcher's presuppositions strengthen qualitative research, this chapter concluded with a discussion of the present writer's bracketed theoretical sensitivities.

IV. SOCIAL/EMOTIONAL CONSIDERATIONS

Although the family remains the most important influence on a child's social and emotional development, school life plays an increasingly important role. The focus of the present study is the influence of teachers and peers in a regular school setting on the social/emotional development and status of students who are hard of hearing. This focus does not deny the important role played by the family but the parameters of the study define the school as the setting of this research.

The formal environment of schools, with curricular and extra-curricular programs, provides opportunities for students to develop personal and intimate peer relationships, to deal with life issues, and to be exposed to different socializing agents (Bandura & Walters, 1963; Rittenhouse, 1987). From a social learning perspective, as children grow older, the modeling role of their parents weakens although the parental role remains an important consideration in a child's development. Nonetheless, peers, teachers, television, and other sources of models become increasingly significant and have a greater impact (Bandura & Walters, 1963; Harvey, 1989). This point is supported in the comments by Stinson and Lang (1994) who elaborate upon the role of the school:

> An important task of education is to promote social development of the child, including effective relationships with both peers and adults. Peer relationships contribute to the development of social skills that reduce the likelihood of social isolation; support the acquisition of attitudes, values, and information for mature functioning in society; and promote future psychological health (p. 156).

Smith et al. (1995) also agree that personal development must be encouraged in schools in addition to academic abilities and support skills. They further suggest that students need to learn "how to get along with their peers and authority figures while they learn how to deal with their beliefs and emotions" (p. 198). Incorporating social learning principles, comments by Schloss (1984) add to the discussion:

> social development can be defined as the acquisition of stable and predictable response

> patterns that are consistent with community expectations and that allow the student to gain satisfaction and/or avoid dissatisfaction from the environment.... [Thus], socially skillful behaviors allow the student to generate reinforcement from the environment (p. ix).

Ross, Brackett, and Maxon (1991) argue that teachers have a responsibility to help their students to become more responsible and independent while enhancing their self-esteem, sense of self, and sense of belonging. Further, students must be encouraged to interact appropriately with their peers and to develop a realistic awareness of their strengths and weaknesses (Ross et al. 1991). Supporting this premise, studies have shown that enhanced self esteem and appropriate social/emotional development positively impact scholastic achievement and subsequent personal adjustment later in adult life (Baldwin, 1994; Lewis, 1973; Stinson & Lang, 1994; Warick, 1992, 1994; Whorton, 1966).

Overview of Chapter

Following that brief introduction, this chapter identifies social/emotional implications of regular education for students who are hard of hearing. The role of hearing in the social/emotional development of these students and its impact on their social/emotional status is also discussed. Directly related to this discussion, comments are made on the impact of learning social rules. Students interact with a variety of people, including their families, peers, and school personnel, all of whom influence their social/emotional development. Analysis of the literature uncovered potential sources for the inculcation and proselytization of negative attitudes to which students with hearing loss may be exposed. The consequences of exposure to negative attitudes and the resulting cycle that may develop if these concerns are not addressed were extrapolated from the literature and are discussed.

The next section is a summary of components of mental health in general, including an overview of social skills and social communication. This introduction leads into the discussion of the research regarding the social/emotional status of students who are hard of hearing. Following evaluative comments on the existing literature is an analysis of research

findings which includes the identified characteristics of these students. The summative conclusion drawn from these analyses is a proposition that a social skills training intervention may be effective for enhancing their social/emotional development and status.

Implications for Students who are Hard of Hearing

Students with less than severe hearing loss are often disadvantaged for learning appropriate social interaction skills and for developing friendships in the regular school environment. Because of their limited ability to communicate comfortably and easily (Alberta Education, 1995; Baldwin, 1994), and the consequent reduced peer interaction (Schloss, 1984), studies have shown that many of these students have a higher incidence of social and emotional difficulties (Antia, 1982, 1985; Warick, 1994). Their primary difficulty is the inability to hear normally, or more correctly, they have the ability to *hear* in most situations, but the inability to *understand* in most. But the incidence of atypical behavioural and emotional symptoms is not reflective of innate personality flaws. Both social learning theory and systemic theory posit that the difficulties experienced by these students are a function of the reciprocal interaction of the individual's characteristics and their environment (Bandura, 1971, 1977b; Bandura & Walters, 1963; Harvey, 1989). In a discussion of Allport's contact theory, Lee and Antia (1992) also discuss the implications of environmental factors on the social/emotional status of these students.

Nonetheless, the unique needs of these students are often missed as they hear too well for special placement in schools for the Deaf, yet not quite well enough to achieve to their intellectual potential (Whorton, 1966). Having what is often referred to as the "Invisible Disability", hard of hearing students are in a grey zone–caught between the hearing and the Deaf worlds. Based on his psychotherapeutic relationships with clients who are hard of hearing, Harvey (1989) elaborates upon the implications of maintaining "the delicate balance of tenuously striving to function between [these] two worlds" (p. 67). Therefore, often because of the "Invisibility Factor", most professionals are unaware of the

social/emotional ramifications of less than severe hearing loss. This subject will be discussed in greater depth later.

Appropriate communication, however, is a critical component of interpersonal interaction. When barriers to effective communication exist, attempts to negotiate social interactions are impacted. These difficulties consequently have a negative effect on social/emotional well-being. Secondary psychological characteristics of students with mild to moderate hearing loss may include maladjusted behaviour, poor self-esteem and a feeling of isolation, for example (Antia, 1985; Lass et al. 1986; Rodda & Grove, 1987; Ross, 1981; Smith, Polloway, Patton, & Dowdy, 1995).

The Role of Hearing

As illustrated in Figure 1, academic and social communication abilities are key factors of educational and vocational success resulting in social and emotional well-being, which depend upon effective communication and interaction, which relate directly to hearing ability.

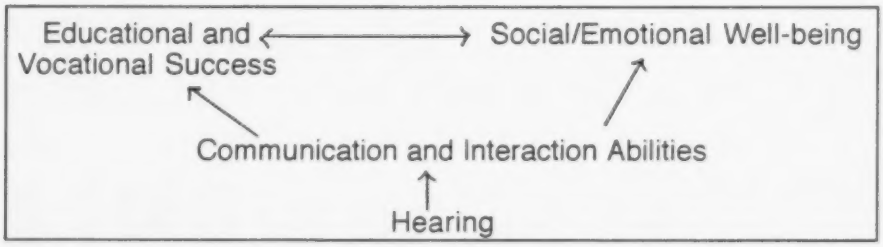


Figure 1 Relationship of Factors Affecting Students Who are Hard of Hearing

For students who are hard of hearing, the hearing loss itself is the source of the secondary communication and social/emotional difficulties they often experience. From a social learning perspective, Bandura (1977b) verifies this by stating: "Because of the importance of symbolic communication in human relationships, deficient or inappropriate responsiveness to verbal cues can have serious consequences" (p. 92). However, Schwartz (1989), as well as Bandura and his associates, indicate that social adjustment and self-

esteem problems can be reduced or alleviated with appropriate management. Other researchers reinforce that these difficulties for hard of hearing students must first be recognized as secondary consequences of their hearing loss–that their social/emotional difficulties are not inherently nor inevitably component parts of their basic personality structure (Ross, 1978, 1990a; Ross, Brackett, & Maxon, 1982). Therefore, without appropriate sound amplification, Ross (1978, 1990a) maintains that effective remediation of these students' academic and social/emotional developmental difficulties will not be possible. A logical relationship can be identified, in that "the communicative problems imposed by a hearing loss must have some impact upon a child's ability to relate to his peers and, thus, they influence his psychosocial adjustment" (Ross, 1981, p. 107). The primary difficulty is hearing loss, but secondary characteristics, as will be further discussed, manifest themselves because of it. Hence, educational and social/emotional management of hard of hearing students' needs revolve around auditory factors. This is because effective use of residual hearing improves communication ability, thereby reducing the impact of the problem at its source–the hearing loss (Berry, 1992; Ireland et al. 1988; Ross et al. 1982).

Ross et al. (1982) caution that auditory management is just one element of ongoing intervention. It follows, then, that effective use of residual hearing has implications for the social/emotional development and status of these students, but does not completely ameliorate the possibility for secondary problems in this area, nor negate the need for ongoing awareness and intervention. Berry (1992) summarizes this point and highlights, again, the circular and interdependent nature of the issues by stating: "the most ideal and appropriate [auditory] management program will be effective only if [hard of hearing] students develop strong communication ties with their peers" (p.35). Berry (1992) in particular, adamantly asserts the importance of avoiding social isolation from one's peers. This opinion is also supported by the results of a study of professionals' knowledge of and exposure to hearing loss which indicate that a feeling of isolation is the worst consequence

of a hearing loss (Lass et al. 1986). From a choice of seven responses, this was the most frequently selected by classroom teachers (23.0%), special educators (24.7%), physicians (26.0%), and rehabilitation counselors (48.5%) In another study, interviews were conducted with normally hearing workers to determine their perceptions of the feelings of someone who is hard of hearing (Getty & Hetu, 1994). A statement to illustrate characteristic perceptions supports the findings of Lass et al. (1986): "He must feel lonely, isolated, closed off from everyone" (Getty & Hetu, 1994, p. 269). The findings of both studies make sense because, as DeConde (1984) points out:

> Communication is the basis of our social and cognitive being; without it, growth and development is stymied, which in turn influences psychological, social, and intellectual processes. The partial…absence of hearing interferes with the development of these processes due to the absence of normal auditory input and the resultant effect on linguistic development (p. 19).

In the following comments, Ross (1990a) further discusses the consequences of not connecting the behavioural difficulties that may be attributed to students who are hard of hearing with the fact that they are able to hear in most situations, although understanding may be difficult:

> When they do not respond, or respond incorrectly or inappropriately, their behavior is not necessarily associated with hearing loss. Instead, they are often accused of not listening, not paying attention, or daydreaming. These children are sometimes described as "hearing when they want to," and are thought to be deliberately provoking their parents and teachers by willfully ignoring or misunderstanding them (p. 14).

Conversely, effectively facilitated classroom and familial communication, including opportunities for social interaction, should produce "students who are [hard of hearing] and comfortable, flexible, and effective with their communicative abilities" (Berry, 1992, p. 35).

Role of the "Unwritten Curriculum"

What is fairly clear and intuitively well-known is that many social rules are learned incidentally (Harvey, 1989; Orlansky, 1977; Ross, 1978). Garrettson (1977) as well as

Stinson and Lang (1994) discuss the concept of "the "unwritten curriculum"–those aspects of learning that occur outside the formal instruction of the classroom" (Stinson & Lang, p. 158). The unwritten curriculum includes information learned from the informal interactions that routinely transpire between students in schools. Such incidental learning may result from bus and hallway conversations, extra-curricular activity participation, social function attendance, interactions between teachers and students (direct and overheard), as well as from television and radio (Garrettson, 1977; Stinson & Lang, 1994). These activities provide information "about social codes and attitudes, health habits, games, etc." (Stinson & Lang, 1994, p. 158). They also include the social nuances and customs that Ross (1978) says "normally hearing [students] pick up by auditory osmosis" (p. 26). Students who are hard of hearing, however, have difficulty accessing these sources penultimately because of their limited auditory capabilities, even with technical support (British Columbia Ministry of Education, 1994; Harvey, 1989; Oyer, 1966; Stinson & Lang, 1994; Yater, 1977). Highlighting the significance of this "unwritten curriculum", Ross et al. (1991) identify elements of the social reality for students in their comments:

> Socially appropriate behavior is intricately conjoined with social communication skills. If [hard of hearing] students do not overhear the comments of peers or misinterpret their meaning, they may be unaware of the social hierarchy that exists in the classroom.... [Social cliques must be recognized] for harmony to exist in the classroom... [and hard of hearing students] must be aware of the undercurrents that may affect their interactions (p. 319).

Other sources of learning often missed by these students are the incidental conversations or comments made by their classmates in response to questions or as part of a discussion group. It is frequently suggested in the literature that teachers should repeat or rephrase what others have said, although this may not always be practically possible (Berry, 1992). Even when this strategy is implemented, words can be repeated by the teacher wearing the microphone, but tone of voice cannot. Also, the teacher will not necessarily repeat students' inappropriate comments, such as those for which they are

subsequently reprimanded. This has a significant implication for students who are hard of hearing, because according to social learning theory, these students would be missing an important element for learning. Bandura and Walters (1963), for example, discuss the importance of being aware of the consequences of a model's behaviour. It is also necessary that appropriate attention be given to the interaction's components (Bandura & Walters, 1963).

The previously related activities are all part of the social/affective life of a classroom. Social immaturity (Smith et al. 1995)–delay, not deviancy–is the result of missing this vital component of social learning. One must, therefore, exercise caution when discussing the social/emotional development and status of these students yet not lose sight of the fact that they have unique communication challenges which may have profound consequences. As Antia (1985) concludes, interaction may be affected by a "lack of knowledge of social communications strategies such as appropriate initiations" (p. 283) and poor linguistic competence. These students are consequently at risk for: limited social acceptance by their peers; exposure to negative stereotypical attitudes; and delay in social skills competencies, all of which have the potential to negatively impact their social/emotional development and status.

Negative Attitudes

Our self concept develops as a result of many factors, but the major contributing factor to how we see ourselves is how we are seen by significant others in our lives (Oyer, 1966). The attitudes of important people, such as parents, teachers, and peers, in the lives of students who are hard of hearing are, therefore, critical contributors to their social and emotional development and status (Ross, 1990a). These attitudes may be positive or negative. As will be discussed, sources of negative attitudes for these significant others may be attributed to: i) the *"Hearing Aid Effect"*; ii) *requests for clarification*; iii) *speech impediments*; iv) *literature on hearing loss*; v) the *"Invisibility" factor*; and vi) *emotional reactions of normally hearing people*. These sources are discussed in the following

sections. As will become evident in later discussions, it is little wonder that students who are hard of hearing exhibit and experience poor social/emotional development and status as a consequence of their hearing loss when we further factor in the negative attitudes to which these students are often exposed.

The Hearing Aid Effect

It has been shown that the presence of a hearing aid, which students who are hard of hearing usually wear, can evoke negative stereotypical attitudes (Blood et al. 1977; Danhauer et al. 1980; Dengerink & Porter, 1984; Fisher & Brooks, 1981). Students wearing hearing aids are likely to encounter discrimination and negative social reactions from both their teachers and their peers, according to these studies. Findings indicate that teachers tend to rate these students negatively on intelligence, achievement, personality, and appearance. In fact, the results of the study by Fisher and Brooks (1981) show that the selection of undesirable characteristics outnumbered desirable ones by a ratio of 3.5 to 1. Further supporting the presence of negative attitudes, Dengerink and Porter (1984) later surveyed the attitudes of upper elementary normally hearing children about hearing aid users. These researchers found similar results to the other studies, in that children also negatively rate achievement and appearance when the observed subject was wearing a hearing aid. The social acceptance of students who are hard of hearing may, therefore, be further compromised because of what Blood, Blood, and Danhauer (1977) coined "the hearing aid effect".

Requests for Clarification

Another contributor to negative stereotyping of individuals with hearing loss was identified in a study by Gagne et al. (1991). They studied reactions to requests for clarification used by individuals with impaired hearing. Results indicate that the type of communication repair strategy used influenced the communication partner's perception of the person with hearing loss. Communication repair strategies are often learned incidentally by most individuals, but because of the hearing disability, students who are hard of hearing

may have difficulties and may consequently need direct instruction. This is an issue of which regular classroom teachers may be unaware and, consequently, their perceptions of their students' social skills may result in negative stereotyping rather than an acceptance of this being another issue affecting the social/emotional development and status of students with hearing loss. As is implied in later discussions, the principles of social learning theory can be effective for improving the quality and type of clarification requests.

Speech Impediments

Because speech and voice quality are directly related to hearing acuity, students with hearing loss may also have difficulties in these areas which may consequently inhibit their social acceptance. This is supported in the results of a study by Blood et al. (1978) which showed that normally hearing adults tend to negatively rate children with speech and/or voice quality impairments. This is yet another example of the origins of negative stereotypical attitudes to which students who are hard of hearing may be exposed which may influence their social/emotional well-being.

Literature Sources

Despite the prevalence of material regarding the unique communication and social/emotional needs of students who are hard of hearing, negative attitudes and misunderstandings prevail among regular classroom teachers. Part of the responsibility lies within the literature itself. The premise that the needs of these students are overlooked is reinforced by a review of publications accessible to teachers and/or teachers-in-training.

It is of concern to this writer that teachers continue to be exposed to possibly misleading and erroneous written material about hearing loss. This takes on increased importance in light of two facts: i) that the majority of students who are hard of hearing are educated in regular classrooms (Alberta Education Response Centre, 1991; Allen & Osborn, 1984; Warick, 1994); and ii) that the majority of regular classroom teachers have not had any courses or other training on the topic of hearing loss (Chorost, 1988; Lass et al. 1986; Martin et al. 1988; Rittenhouse, 1987). Bandura (1977b) suggests the

significance of this state of affairs by indicating that it is not unusual for individuals to have emotional reactions and stereotypical attitudes regarding people or things with which they have not had personal contact. Therefore, with no background, these teachers must, in most cases, refer to the literature when faced with teaching a student who is hard of hearing. As teaching is a challenging and busy career, professionals usually do not have a great deal of preparation time to seek out specialists. Nor can they necessarily access University libraries where textbook-type material would be more readily available. Often, they will be provided with information prepared by their government's Education Department, such as the monograph *Counselling for Hearing Impaired Students* produced by the Special Educational Services of Alberta Education (1986). Alternatively, teachers may access an introductory textbook that discusses a variety of exceptionalities. Thus, following is a discussion of some areas of concern with specific and general examples from currently available materials purporting to address the educational needs of students who are hard of hearing.

Terminology. There are examples of inconsistency in the literature that may be confusing to most readers, the present writer included. Some sources, for example, focussing specifically on students with less than severe hearing loss repeatedly iterate that these students have social/emotional problems and needs different from students who are deaf and different from students with normal hearing. However, terminology and/or their population are/is not clearly defined.

Defining Degree of Hearing Loss. The document, *Education of Deaf and Hard of Hearing Students in Alberta: 1989-1990* contains survey results provided by the Alberta Education Response Centre (1991). One might normally expect numerical statistical information to be objective. Questions arise, however, from this particular document regarding the reporting of degree of hearing loss. Specifically, one section adheres to the more commonly accepted categories of mild to profound. Confusing the issue, however, the majority of the text lists the categories as: "hearing is good", "some trouble hearing",

"much trouble hearing", and "student is Deaf". Although it is buried in text that hearing is rated with amplification, the naive reader may nonetheless miss the subtleties of that statement. The category of "hearing is good" with amplification, in particular, highlights a specific concern. This statement has the potential to perpetuate negative attitudes of regular classroom teachers, as there may be a discrepancy established between expectations of the communication ability of these students and reality as also illustrated in the example, given later, from Rees (1992). Compounding this issue are the subjective adjectives of: "good", "some trouble", and "much trouble". What do these terms really mean? To what are they being compared?

Paul and Quigley (1990) provide another example of how literature itself can influence the inconsistent understandings of professionals. They devote a chapter of their book, *Education and Deafness*, exclusively to a discussion of students who are hard of hearing. Although the book's chapters focus primarily on d/Deaf students, the authors are very precise in: clarifying terminology; distinguishing clearly between students who are hard of hearing and those who are Deaf; and recognizing that their academic, communication, and social/emotional needs are different. The brief discussion of social development of hard of hearing students and intervention techniques to improve their social interaction raises credibility concerns, however. The original research cited (Antia & Kreimeyer, 1987, 1988) used participants who would predominantly be classified as d/Deaf by the definitions set forth by Paul and Quigley themselves. Again, inconsistent terminology usage in studies and books even as recent as the late 1980s and 1990 reinforces the premise that hard of hearing students tend to be forgotten and/or grouped together with students having more severe hearing losses who rely on manual communication.

Use of "Deaf and Hard of Hearing". The phrase "Deaf and hard of hearing" is often used in such a way that it could almost be hyphenated into one word, as in "Deaf-and-hard-of-hearing", with the focus of attention usually on the "Deaf" part. Also, it is rarely phrased as Deaf *or* hard of hearing, nor that the elements are reversed. This

predilection persists, despite the fact that "there are about four times more people who are hard-of-hearing than who are deaf" (Vernon & Andrews, 1990, p. 250). Prevalence rates alone should encourage more awareness of inappropriate phrasing. Also, from a semantic stance, an individual cannot be both Deaf and hard of hearing concomitantly. The conjunctive use of "or" also syntactically separates the two elements, which semantically and pragmatically implies a difference between them.

Use of "Hearing Impaired". Another example of how students who are hard of hearing are often neglected, is the use of *hearing impaired*, which is an umbrella term for all degrees of hearing loss. A case in point is the document by Special Educational Services (1986). Although distinctions between the two groups of students, deaf and hard of hearing, are stated, the document focusses almost solely on those who are deaf, with token comments related to students who are hard of hearing.

As another example, the title of the document, *Education of Deaf and Hard of Hearing Students in Alberta: 1989-1990* (Alberta Education Response Centre, 1991), suggests that distinctions will be specified and addressed between students who are Deaf and those who are hard of hearing. This, however, is not the case. Students with "impaired hearing" is the preferred term throughout, which illustrates how the two distinct groups of students are often combined under one phrase and will remain so in the minds of teachers if this continues to be their syntactic, semantic, and pragmatic model.

Also, when the term *hearing impaired* is used in an empirical study, the subjects more often than not are d/Deaf and not functionally hard of hearing. Trying to isolate research results of those students who are functionally hard of hearing can, therefore, be an exercise in frustration. A naive reader would not necessarily recognize the nuances. The significance of these points lies in two facts: i) that it has been possible since the 1860s to audiologically distinguish between individuals who are deaf and those with functional residual hearing; and ii) that since the 1950s, more attention than was previously the case, has been focussed on those with less than severe hearing loss. Possible reasons for the imbalance of attention

can be found in Gniazdowsky (1977). The importance of classifying people with hearing loss into the separate groups of Deaf and hard of hearing is reinforced by the comments:

> There has been a tendency on the part of the hearing to lump the deaf and the hard of hearing together into an unnatural and unwieldy conglomerate, labelling it with a bland and nebulous term: "hearing impaired." The result has been confusion and loss of identity (The Deaf Canadian Magazine, 1981 as cited by Laszlo, 1994, p. 250).

"Hard of Hearing Culture". Erroneous information in readily accessible material for professionals is further exemplified in the document by Special Educational Services (1986). In section three, the author provides a brief "Orientation to Hearing Impaired" (p. 10). Following a concise discussion of Deaf Culture, section 3.2 is entitled: "Awareness of Hard-of-Hearing Culture" (p. 10). The comments contained in this section must be evaluated in terms of the title. As other literature indicates, people who are hard of hearing are more like people with normal hearing than like those who are Deaf. It has not been established that a distinct culture exists for people who are hard of hearing as is the case for those who consider themselves Deaf (with a capital D). Nor do hard of hearing people have their own distinct language as stated in this source. Thus, the following comments from this source are wrong and misleading:

> Although most hearing impaired [meaning hard of hearing] individuals grow up in a hearing world, they have a culture and language distinctly their own. Theirs should be viewed as a parallel society, a culture that has evolved in response to the unique needs of those with hearing impairments. Hearing impaired communities throughout Canada organize and participate in their own activities; like new immigrants to this country, the hearing impaired proudly retain their cultural roots and unique identities as a vital part of their lives (Special Educational Services, 1986, p. 10).

This information would be better suited to inclusion in the section about Deaf Culture. Furthermore, the authors refer the reader to Alberta School for the Deaf (ASD) for "exposure to the Deaf *and Hard-of-Hearing* Communities" (Special Educational Services, 1986, p. 10; emphasis added). The uninitiated reader would not necessarily recognize the fallacies of these statements. The present writer maintains the distinctions between the

terms *Deaf* (with a capital D) and *hard of hearing* as they are defined in Chapter II. One of the major distinguishing features between each individual's identity is their choice of mode of communication. An individual with a Deaf identity and subsequent affiliation with Deaf Culture uses sign language as the primary mode of communication. Individuals who identify themselves as hard of hearing use speech and residual hearing to communicate. Although some individuals may have less than profound hearing loss, ASD is considered a centre of the Deaf Community, reinforcing and subscribing to Deaf Culture and its values. Hence the importance of disseminating correct information to teachers who have no background in the subject.

Misleading Expectations. Another issue of concern is exemplified in the following statement from the general, introductory textbook, *Children with Exceptional Needs in Regular Classrooms*, in the chapter entitled, *Students with Hearing Impairments*: "Teaching a child who is hard of hearing is similar to teaching a child who can hear" (Rees, 1992, p. 100). As this statement stands with no qualifications, it exemplifies misleading statements contained in such sources. It also highlights the neglect of some very real issues when hard of hearing students are educated in regular classrooms. Moreover, although the author continues on to mention that attention to the listening environment is important, the next statement, from the same section, has the potential for setting up unrealistic expectations: "Well-maintained hearing aids and other amplification equipment used appropriately…permit hard-of-hearing…children to function well in public school classrooms" (Rees, 1992, p. 100). A discrepancy between expectations and reality is perpetuated by these comments, providing fertile ground for negative and stereotypical attitudes toward students who are hard of hearing. Furthermore, the author intends to discuss concerns related to students who are either deaf or hard of hearing, as implied in the chapter's title. A contrast is thus identified in the text's next paragraph, which reads:

> Teaching a child who is deaf is a very different proposition from teaching a child who can hear. To be successful with deaf children, educators must be aware of how to educate a hearing or hard-of-hearing child and additionally learn about visual aids or

> other means of communicating, as well as linguistic, social, and cultural considerations. (Rees, 1992, pp. 100-101).

There is nothing inherently wrong with these comments in and of themselves, except for the repeated erroneous statement that there is no difference between teaching a student with normal hearing and one who is hard of hearing. As well, by implication, the final phrase of the last sentence indicates that communication, linguistic, and social considerations are not necessary for the student who is hard of hearing. Should a regular classroom teacher of a student who is hard of hearing believe a source such as this, s/he may conclude that the hearing problem is eliminated and/or immaterial in the presence of a hearing aid and/or assistive listening equipment. When the student continues to respond inappropriately, however, it is possible for the attitude that s/he must be displaying selective listening to be confirmed, thus reinforcing the illusion that these students are indeed poor learners and/or are being willfully difficult.

As another example, a statement made by Orlansky (1977) could also be misleading: "Expect the same kind of behavior, responsibility, and dependability from the hearing impaired student as you would expect from the rest of the class" (p. 57). Taken out of context, this type of statement ignores the very real social, emotional, and behaviour problems that may result from hearing loss. As will be discussed in greater depth, there are concerns, secondary to hearing loss, that must be addressed which are neglected in a statement such as this.

Discussion. The issue of correct and clear information for teachers is considered even more critical when examining results of studies such as by Lass et al. (1986). Their findings indicate that the surveyed professionals have deficiencies in their knowledge of and exposure to hearing loss. 62.2% of the classroom teachers surveyed had never had any academic exposure to the topic of hearing. As well, when "the average percentage of correct responses for all four professional groups on all informational items on the questionnaire is [only] 73.8%" (Lass et al. p. 336), one could make the assumption that

incorrect knowledge prevails, possibly leading to negative stereotypical attitudes. This supports the argument for careful attention to content of materials available for people who may be naive in matters related to hearing loss.

The "Invisibility" Factor

The invisibility of hearing loss, which can be both an advantage and a disadvantage, unfortunately may also encourage misconceptions. Because it cannot easily be seen, a hearing loss can be hidden successfully until the effects on behaviour and/or academic progress become obvious (Davis, 1981; Harvey, 1989; Ross, 1981). Unless properly clarified, this inconsistency may also inadvertently reinforce misinformed teachers' negative attitudes. It is essential, therefore, that the stigma of having mild or moderate hearing loss and wearing a hearing aid be ameliorated, because at the present time, as Getty and Hetu (1994) describe:

> Having a hearing impairment is seen as a condition that needs to be hidden. It leads to a negative self-image–seeing oneself as diminished, weak, less of a person. It is understandable that, with the threat of stigmatization surrounding an invisible impairment, one would do everything to conceal the impairment (p. 269).

Furthermore, in a study by Kyle and Wood (1983), "of the 89% of interview respondents who reported difficulties in street conversations, 79% reported that they would not publicly tell people that they had a hearing problem!" (as cited by Harvey, 1989, p. 110).The concern here is that, unless a hearing loss is recognized, the unique academic, social, and emotional needs of students who are hard of hearing cannot be met, which may have even more negative consequences than disclosure has, especially in the long term. Harvey (1989) discusses the implications for self-concept development for individuals who habitually "hide" their hearing loss. Students may continually feel embarrassment for inappropriate responses and "not being with it" (Harvey, 1989, p. 62). Consequently, their continual hiding of their hearing loss "frequently becomes cognitively distorted and thus justified as needing to hide *something*, often in reference to an unacceptable part of oneself" (Harvey, 1989, p. 62).

Reactions of Normally Hearing People

For all of the foregoing reasons, and probably for others not mentioned, people with normal hearing may experience a variety of reactions to those with hearing loss. Negative stereotypical attitudes have already been identified. Contributing to this discussion, Green (1976) highlights some other feelings in the statement:

> A common reaction of normal hearing people to a hearing impaired person is "he or she is different" and this may engender feelings of pity, over solicitousness, annoyance, sympathy, or curiosity (p. 77).

An example of this can be found in Ross et al. (1991) who discuss the important roles played by educators and parents in the lives of students with hearing loss. Overprotection, under the guise of helping, in terms of avoiding realistic discussions of expectations and the reality of coping in the hearing world, shelters the individual and sets him/her up for failure. Redirection, without discouraging students' aspirations, provides a healthier route toward a sense of well being.

Although some people may not even be aware they harbour such responses, their overt responses to these feelings may, nonetheless, also significantly impact the social/emotional well-being of those who are hard of hearing. This is supported by research findings on the "self-fulfilling prophecy" by Rosenthal (1968). Regarding teacher-student interactions, Rosenthal (1968) found that teachers adjust their teaching style according to perceptions they have of their students. Referring to the earlier comment of overt behaviour stemming from covert responses, Rosenthal (1968) also found that, albeit quite unconsciously, teachers nonetheless communicate their expectations both orally and visually. Following a social learning approach, such behavioural responses of emotional reactions also model inappropriate interactions, and deny self-efficacy for the student who is hard of hearing.

Negative Attitude Cycle

To conclude this section on negative attitudes, Berg (1986) neatly summarizes what can happen if negative attitudes and their sources remain unchecked:

> A vicious cycle can occur in which hearing loss and associated secondary impairments

(e.g., listening and emotional problems) trigger negative parental, [educator,] and societal reactions, which in turn causes the child to have further educational and social problems. Each time this cycle repeats itself, it can result in further deterioration of the child's emotional well-being and educational adjustment (p. 20).

This cycle is succinctly illustrated in Figure 2.

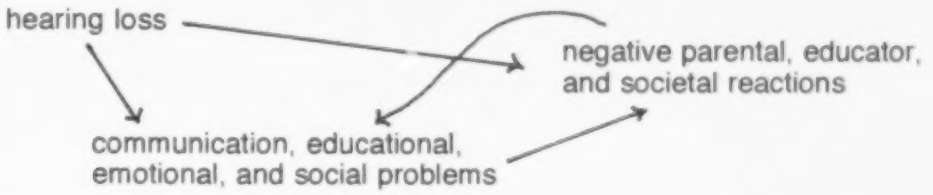

hearing loss
negative parental, educator, and societal reactions
communication, educational, emotional, and social problems

Figure 2 Negative Attitude Cycle

As the hearing loss is unlikely to be removed from the equation, it would be more beneficial to all concerned to concentrate efforts on the reframing of attitudes in a more positive light and on productive promotion of social/emotional well-being for students who are hard of hearing. Furthermore, as prejudices and attitudes in general "are acquired through imitation and direct training" (Bandura & Walters, 1963, p. 19), modeling of accepting, warm, and welcoming behaviours would do more to enhance the self-esteem of these students. Wright (1970), in a discussion of effective counselling techniques and relationship interactions, also supports this view.

Mental Health

Rodda and Cumming (1991) clarify why it is crucial to consider the social and emotional needs of individuals. Implications for students who are hard of hearing may be drawn from the propositions made: i) mental health is the product of relationships between self and others; ii) mental health is predicated upon a positive self-image; iii) mental health is maintained by effective communication; and iv) the consideration of life sequences is important in the formation of good mental health (Rodda & Cumming, 1991). These

researchers further elaborate that mental well-being depends upon active involvement in community activities and being able to interact with peers. Having a sense of accomplishment and/or contribution, therefore, results in good self-image. Support from peers, implying social acceptance, is another important element of mental health (Rodda & Cumming, 1991). Feeling good about oneself and being aware of others' needs are the ultimate goals for an individual to be healthy in a psychological sense (Rodda & Cumming, 1991). The ability to communicate with peers and the wider community, to a large extent underpin the success of these crucial points.

A conclusion that may be drawn from these propositions is that effective communication is the keystone to social/emotional well-being. As inability to communicate effectively is often the primary difficulty faced by students who are hard of hearing, it is therefore logical that these students are at risk and that their social/emotional needs and status require monitoring. As Baldwin (1994) indicates, "having language and opportunities to share ideas is a basic human need" (p. 166), and any interference would thereby constitute a serious impact to one's sense of well-being. The next section discusses those areas of social interaction which may be impacted by interference of one's communicative ability.

Social Skills

Social skills are learned behaviours that enhance positive interactions with other people. Many of these behaviours are language and/or communication based, both of which may be challenging for the student with hearing loss as has been discussed previously.

Some important social behaviours necessary for successful peer interaction can be gleaned from the literature. These skills include: greeting others; sharing; asking for needed assistance; saying thank you; apologizing; conversational skills such as initiating conversations, asking and answering questions, and turn-taking; talking about current and popular television shows and movies; giving compliments; following game and classroom rules; helping others; controlling anger; showing a sense of humour; and knowing current

slang words (Andrews & Lupart, 1993; Gearheart et al. 1992; La Greca & Mesibov, 1979). On the other hand, unacceptable social behaviours that discourage social acceptance by one's peers include: not responding to peer social initiations; entering games or group activities uninvited; and misinterpreting the approach behaviors of peers (Gearheart et al. 1992). Some of these behaviours, of course, are developmentally based and some are more important at different chronological ages.

Chronological Age as a Factor of Social Communication

As mentioned, communication is critical to one's sense of well-being. Specific communication needs in a school setting do, however, fluctuate with chronological age (Bandura, 1977b; Berry, 1992; Brackett, 1990; Harvey, 1989; Maxon & Brackett, 1992) and should be considered when proposing appropriate intervention for students who are hard of hearing. Table 5 succinctly summarizes the changing communication focuses of students across chronological age. As illustrated in the table, social communication plays a large role throughout a student's school life.

Table 5
Communication Needs at Different Ages

Chronological Age	Communication Focus
Preschool	Social/interactive communication is crucial, including the opportunities for peer interaction, to share stories, and to dialogue.
School-age	A balance is needed between academic and social/interactive communication.
Adolescent/Young Adult	Social/interactive communication is again prominent.

Note. Adapted from Bandura, 1977b; Berry, 1992; Brackett, 1990; Harvey, 1989; Maxon & Brackett, 1992.

Reich et al. (1977) also elucidate the importance of identifying a connection between the chronological age of students and their social needs. They report that as hard of hearing students age and become peer-dominated (just like other adolescents), an increase in their

personal and social problems may correspondingly occur. Berry (1992) indicates, as well, that among the more obvious academic and vocational reasons for effective communication, there are implications for social/emotional development.

Research on the Social/Emotional Status of Students Who are Hard of Hearing

Although social/emotional concerns may be considered as important as academic achievements to successful mainstreaming (Bess & Humes, 1995; Ross, 1990c), some researchers report that little empirical investigation of these issues has occurred, particularly prior to 1980, focussed on students who are hard of hearing (Antia, 1985, Davis et al. 1986; Getty & Hetu, 1994; Ross, 1978; Ross, 1981). The opinion that research on this subject is limited may be accounted for when educational trends are tracked and when methodology is considered. According to one source, the significance of social ability was not really recognized nor were social skills included in the curriculum until the 1980s (Andrews & Lupart, 1993) and was therefore not considered relevant for research.

Challenges to Researchers

Although somewhat frustrating to realize the paucity of information available about students who are hard of hearing, there are some potential reasons for the limited research. In the field of deafness studies, which includes the education of both deaf and hard of hearing students, researchers must deal with a number of challenges. First, profound hearing loss may be considered more dramatic and apparent than lesser degrees (Gniazdowsky, 1977). Also, residential schools for the Deaf have provided convenient centralized sources of subjects (Gniazdowsky, 1977). Conversely, hard of hearing subjects, predominantly educated in mainstream settings, can be more difficult to locate (Davis et al. 1986). Further, the heterogeneous qualities of those who are hard of hearing, as discussed earlier, also make it difficult to pinpoint a subject group and consequently to develop generalizable results and recommendations. For instance, the communication and subsequent social/emotional needs of a student with mild hearing loss are different from

one with severe loss. An individual's needs are also affected by the time of onset of the hearing loss. Yet all individuals with mild to moderate, and sometimes severe, hearing losses are classified as hard of hearing. It is also easier to hide, and subsequently deny, being hard of hearing.

With awareness of the challenges faced by researchers in this diverse field, one can perhaps explain the somewhat limited research and empirical data. Although investigation of the needs of students who are hard of hearing brings a multitude of challenges, research must continue. To benefit society while supporting the principles of inclusive education, continuing research can acknowledge the challenges while addressing the needs of these students in efforts to identify and implement effective means to enhance their social/emotional development and status.

Early Research

The findings of the present researcher indicate that the social/emotional status of students who would be classified as hard of hearing has indeed been investigated by many in empirical studies prior to the 1980s, particularly in the United Kingdom. The dynamics of regular classrooms, educators' expectations, as well as the characteristics of the subjects themselves may be very different in recent studies, but these considerations do not nullify earlier findings nor eradicate their existence.

Methodology and Instrument Considerations

Davis (1981) highlights an underlying challenge for researchers in this area that must be remembered when evaluating the relevance and validity of empirical data. The author states:

> The nature of social problems is such that they do not lend themselves easily to investigation. How does one measure feelings of isolation, being left out, or insecurity in social situations? What numerical measure can be made of a child's acceptance by others, the degree to which he is included in peer activities, and the quality of friendly interaction with other children? (Davis, 1981, p. 70).

Literature sources provide suggestions for accomplishing this feat, although with cautions. These cautions particularly consider the use of self-esteem tests which are usually self-

reporting formats, and other language-based assessments, as the language level may place the hard of hearing student at an unfair disadvantage (Davis, 1981; Maxon & Brackett, 1992; Ross et al. 1991). Also, Aplin (1987) suggests that teacher completions of behaviour rating scales and inventories may reflect more the teacher's attitudes toward the behaviour than an accurate indication of the behaviour itself. Addressing this concern, Ross et al. (1991) provide a comprehensive format to guide on-site observations of the social interaction behaviour of students who are hard of hearing. LeBuffe (1987) also presents a classroom observation form which includes attending to the degree and type of interaction the student with hearing loss has with his/her peers. This approach is based on the rationale that informal observations remove the pencil-and-paper aspect of many formalized testing situations and identify social behaviour in more natural settings and move assessment into a more objective realm. Consequently, Ross et al. (1991) suggest that:

> the best time to observe interactions with classmates is not in the classroom but in the hall or at lunch, recess, or free play. These unstructured situations provide a vehicle for ascertaining group status as well as how the other children deal with and talk to the [hard of hearing] child (p. 317).

Research Findings on the Social/Emotional Development and Status of Students Who Are Hard of Hearing

Educating students who are hard of hearing in regular classrooms is intended to encourage social interaction with their normally hearing peers. This is an area of concern, however, as most research indicates that students who are hard of hearing experience social and emotional difficulties (Antia, 1985; Berg et al. 1986; Rodda & Grove, 1987; Ross, 1978; Warick, 1994). This statement is made with some caution, however, as not many empirical studies have investigated the situation of these students specifically and some results are conflicting. Nonetheless, many authors have published their opinions on the subject and the most widely held opinion is that these students are at risk. A brief discussion of some findings follows.

Findings Supporting Social Acceptance

Opposing the commonly held opinion, a Scottish study by Bowyer and Gillies (1971) indicates that, with support from specialist teachers and modification of adults' negative attitudes, the mainstreamed hard of hearing subjects of the study "were coping with the same tasks as the non-handicapped children with no greater incidence of maladjustment than is found in an unselected school population" (p. 307). Of interest though, the researchers state that these results did not support their hypothesis, implying their expectation for social difficulties of these students as well. The researchers further qualified their results with a suggestion that students with poorer coping skills tended to be educated in segregated settings, thus possibly skewing the subject pool. The discussion of the results of a later British study by Aplin (1987) suggest the same phenomenon. Aplin also found that the maladjustment levels of the subjects who were hard of hearing and educated in regular classrooms were low compared with the results of some hearing subjects of other cited research.

The findings of a study by Kennedy and Bruininks (1974) also oppose commonly held expectations that students with hearing loss would have social difficulties. Based on the results of the three sociometric scales used, the researchers report that the young hard of hearing students involved in the study appear to have a degree of social acceptance inconsistent with findings of others' research which indicate that these students have problems. Some possible uncontrolled variables were pondered in attempts to explain the divergence. It is interesting to note, however, that despite the findings of their study, Kennedy and Bruininks (1974) still maintain in their concluding comments a need to develop effective strategies to enhance the successful social integration of students with hearing loss into regular classrooms. It seems that although they believe their data to be valid, they question the reliability and, by recommending further research to determine factors affecting degree of social acceptance, they seek justification for why their hypothesis was not confirmed, particularly in light of others' results.

The findings of a more recent study by Luckner (1991) of regular classroom teachers' perceptions of students in their classes with impaired hearing also refute commonly held beliefs. The author maintains, nonetheless, that enhancement of socialization with hearing peers depends a great deal on pre-service and in-service training of school personnel. This conclusion, however, does not quite coalesce with the study's findings. Effective social interaction by students with hearing loss, for instance, is reported as not being a concern. This lack of concern was deduced from the study's results that indicated that almost 93% of the participant teachers reported that the hearing-impaired students in their classes exhibited either adequate, good, or high socialization abilities (Luckner, 1991).

Findings Supporting Social/Emotional Difficulties

Other empirical research has shown that students with hearing loss have more social and emotional difficulties than their hearing peers (Antia, 1985; Berg, 1986). Some findings indicate, for example, that students who are hard of hearing socially interact more with their teachers than with their hearing peers (Antia, 1982, 1985; Davis et al. 1986; McCauley, Bruininks, & Kennedy, 1976) and are, indeed, at risk for social and emotional difficulties beyond what would be expected for their normally hearing peers (Antia, 1985; Berg, et al. 1986; Warick, 1994). Davis et al. (1986), for example, interviewed students who are hard of hearing. Half of them indicated that they were concerned about making friends or being socially accepted by their hearing peers. Conversely, only 15 percent of the students with normal hearing expressed similar concerns.

Social/Emotional Characteristics of Students Who are Hard of Hearing

Much material has been published about the social, emotional, and behavioural problems experienced by most students with hearing loss educated in regular schools (Antia, 1982, 1985; Aplin, 1987; Berg, 1986; Bowyer & Gillies, 1972; Hartmann, 1990; Harvey, 1989; Kennedy & Bruininks, 1974; Rodda & Grove, 1987; Ross, 1981). Characteristics ascribed to these students have been identified through a variety of methods. These include student self-reports (Warick, 1994); on-site observations by researchers

and/or by classroom teachers (Antia, 1982; McCauley et al. 1976); completion of behaviour checklists and inventories by parents and/or teachers (Aplin, 1987; Bowyer & Gillies, 1972); standardized assessments (Davis et al. 1986; Bower & Gillies, 1976; Kennedy & Bruininks, 1974); and interviews with hard of hearing students themselves, as well as their parents, educators, and peers (Davis et al. 1986). In the book *Psychotherapy with Deaf and Hard-of-Hearing Persons: A Systemic Model*, Harvey (1989) discusses the social/emotional status of these individuals based upon his clinical work. Extensive inclusion of narrative comments from clients substantiates the validity and reliability of his conclusions.

As mentioned previously, although some research results are conflicting, most empirical studies have found that students with hearing loss display some social/emotional anomalies. Following are the findings extrapolated from the literature.

Aggression and Withdrawal. Students who are hard of hearing may become alienated, withdrawn (Davis, 1981; Fisher & Brooks, 1981; Oyer, 1966; Smith et al. 1995; Yater, 1977), or rebellious (Baldwin, 1994) because of their communication difficulties. They may also display inappropriate aggressive behaviour (Davis, 1981; Davis et al. 1986; Ross et al. 1991; Yater, 1977) or anger (Harvey, 1989; Yater, 1977).

Aggressive students tend to be more noticed by their teachers and peers and may consequently be referred to school psychologists and/or principals. Hard of hearing students displaying these behaviours may consequently be mislabeled as emotionally disturbed or socially maladjusted. The aggressive behaviour may, however, really be a healthy attempt and reaction to the communicative inability to conduct an argument or to adequately express displeasure (Bandura & Walters, 1963; Davis, 1981; Ross et al. 1991). Inappropriate aggressive behaviours may also be in response to internalized anger that the student with hearing loss expresses "by projecting his or her own feelings of awkwardness and self-rejection onto hearing...[peers]" (Harvey, 1989, p. 68) resulting in further social isolation. Although referrals to other professionals may be an overreaction to immature

behaviour (Davis et al. 1986; Fisher & Brooks, 1981), aggressive actions towards peers are not likely to foster social acceptance.

Conversely, students exhibiting withdrawal from social activity may have a more difficult problem, according to Davis (1981). Because their poor social skills are more easily overlooked by their teachers and peers, appropriate intervention is less likely. Negative self esteem and poorer adjustment can result from feelings of isolation from classmates and teachers.

Dependence on Teacher. Despite the findings that these students feel isolated from adults, research has also shown that these students interact more with their teachers than with their hearing peers (Antia, 1982, 1985; Davis et al. 1986; McCauley et al. 1976). This could be misconstrued as a higher demand for attention (Fisher & Brooks, 1981; Yater, 1977) or over-dependence on adult attention (Fisher & Brooks, 1981; Smith et al. 1995; Yater, 1977) and a diminished desire to interact appropriately with peers (Davis et al. 1986). Consequently, students who are hard of hearing often have difficulty making friends of their hearing school-mates (Davis et al. 1986; Laszlo, 1994; Smith et al. 1995; Warick, 1994). Overdependence, however, is not an indication of emotional disturbance, but rather denotes a need for appropriate social skill enhancement (Bandura & Walters, 1963).

Somatic Complaints. As well, for some reason, students who are hard of hearing may also express physical complaints more often than their hearing peers (Davis et al. 1986; Harvey, 1989). Dependency has been defined as "a class of responses that are capable of eliciting positive attending and ministering responses from others" (Bandura & Walters, 1963, p. 139). Perhaps some hard of hearing students have, therefore, determined, albeit unconsciously, that complaining of somatic discomfort is a more socially acceptable way to gain needed attention? It would also effectively increase their interactions with adults as opposed to their peers, in a relatively "safe" way. Hence, the greater interaction with teachers.

Effects of Listening Demands. Ross et al. (1982) suggest that greater interaction with teachers is a logical consequence of the difficulty hard of hearing students have in following classroom discussions. The difficulties encountered in attempting to follow classroom discussions can also make younger children, in particular, often appear to be inattentive or distracted (DeConde, 1984). Moreover, very real stress, anxiety, and fatigue may result from having to cope with the conversational complexities and listening requirements of the regular classroom setting (Alberta Education, 1995; Harvey, 1989; Laszlo, 1994; Yater, 1977) and having to compete with hearing peers (Maxon & Brackett, 1992; Yater, 1977). Increased somatic complaints may also be interpreted as inarticulate and imprecise verbalizations of stress and fatigue. Inattention (DeConde, 1984; Yater, 1977) and withdrawal can result from fatigue as well.

Students who are hard of hearing need to speculate constantly and to fill in missing information in order to respond appropriately. This can be tedious, frustrating, and exhausting resulting in exhibited behaviours of insecurity and paranoia, as well as feelings of powerlessness and fear (DeConde, 1984; Harvey, 1989). Frustration has been defined simply as delay of reinforcement which "may arise from the existence or creation of environmental barriers, physical or social" (Bandura & Walters, 1963, p. 116). Bandura and Walters (1963) also give examples of barriers, some of which apply directly to students who are hard of hearing, such as: "conditions under which an excessive amount of work is required for obtaining the necessities of life, [as well as] personal limitations, physiological or psychological, genetic or learned" (p. 116). It is also reported that frustration may elicit a variety of reactions including: "aggression, dependency, withdrawal, somatization, regression, [and] apathy" (Bandura & Walters, 1963, p. 67). All of these characteristics have been attributed to students who are hard of hearing. It makes sense, then, that students lacking the necessary perseverance and self-confidence, may consequently give up easily and withdraw from the situation (DeConde, 1984).

Berg (1987) suggests that students in regular classrooms spend almost half of their school day listening. This is demanding for the student who is hard of hearing (Laszlo, 1994). With all of this, it is little wonder, then, that students who are hard of hearing will also exhibit the following: more frequent misunderstanding of the teacher (Berg, 1970a; Yater, 1977), poorer study habits (Berg, 1970a), "less desirable attitudes toward school" (Berg, 1970a, p. 13), and difficulties adjusting to school (Davis et al. 1986).

It is therefore logical to introduce methods to improve both the source of frustration (the circumstances involved in listening) and responses to frustration. Bandura (1976), for example, suggests that to reduce defensive reactions resulting from an underlying anxiety, it is necessary to reduce the source of the anxiety or frustration. The mechanics of enhancing a listening environment and facilitating hearing/communication on a functional level are dealt with in a separate section of this thesis. Also, application of social learning theory for shaping frustration reactions through appropriate modeling (Bandura & Walters, 1963) is elaborated upon later in this thesis.

On Being "Different". A student with hearing loss may also have poor self-esteem and a poor self-concept because of their feelings of being different (Davis et al. 1986; Harvey, 1989; Oyer, 1966; Warick, 1994). Most young people, particularly adolescents, react negatively to being perceived as different in any way, be it because of hair colour, ear or nose size, and so on. Bandura and Walters (1963) also contend that "physical characteristics may have a considerable *indirect* influence on the course of an individual's [social/emotional] development" (p. 27) because of the patterns of social reinforcement. Individuals departing from the physical ideals of their culture may not experience prestige and popularity among their peer group, for example (Bandura and Walters, 1963). For hard of hearing youth with possible speech impairments and required to wear hearing aids along with bulky amplification units, this common fear and possible social reactions are exacerbated (Alberta Education, 1995; Davis, 1991; Harvey, 1989; Ross, 1981; Ross et al. 1982). It is also reported that, to avoid negative reactions from others, some people may try

to hide any perceived physical shortcomings (Bandura & Walters, 1963). This elaborates on the discussion of "The Invisibility Factor".

Twenty percent of respondents to a recent survey of Canadian hard of hearing youth by Warick (1994) reported that they had few friends and that others do not understand. This exemplifies why feelings of isolation (Davis et al. 1986; Fitch, 1982; Lass et al. 1986; Laszlo, 1994; Rodda & Grove, 1987; Stinson & Lang, 1994; Yater, 1977), frustration (Fisher & Brooks, 1981; Ireland et al. 1988; Stinson & Lang, 1994; Yater, 1977), of being an outsider (Smith et al. 1995), loneliness (Stinson & Lang, 1994; Wright, 1970), and rejection (Davis et al. 1986; Stinson & Lang, 1994; Yater, 1977) often ensue. Many hard of hearing adolescents and young adults have also stated that they are discouraged (Warick, 1994).

The results of Warick's (1994) study, in particular, as they presently stand, are significant enough to warrant our attention. They may become even more significant if one accepts Berg's (1986) statement that "people tend not to reveal their true perceptions when they perform undesirably in life situations" (p. 20). From this perspective, perhaps Warick's (1994) interpretation of a written comment from one of the respondents, "I am coping just fine, thanks", could be reanalyzed. Warick (1994) concluded, based on this comment, that not all hard of hearing youth are having difficulties. So, based on Berg's observation, and although it is only supposition, could the writer of that comment indeed be having difficulty as well, yet not be able to recognize or admit so? Perhaps because of not wanting to be "different"?

Feelings of fear, inadequacy, inferiority, helplessness, and hopelessness, as well as bitterness and resentment towards their hearing loss (Smith et al. 1995; Wright, 1970) are also reported. In their summary of personal interviews with students who are hard of hearing, Davis et al. (1986) provide some specific examples from students' perspectives:

[Some students] mentioned getting into fights and being teased by their peers, often

> because of their hearing aids. Twelve children stated that they would not volunteer the information that they wear hearing aids because of a fear of being teased and embarrassed, and many others reported spending most of their time alone (p. 60).

Peer interactions are an important component of social skills in the regular classroom. Having friends, belonging to the "in" group, and not being perceived as different are all important aspects of any student's schooling, and become increasingly so as the individual matures. It may, however, be even more poignant for the student with hearing loss in a regular classroom setting.

Professionals' Projected Attitudes. In a 1987 study, Aplin had teachers complete the Rutter Children's Behaviour Questionnaire. The most commonly marked item was 'Tends to be on own–rather solitary'. This is an observation of behaviour, rather than an expression of how the student may be feeling and neither does it suggest nor imply reasons for the behaviour. Moreover, the item is open to subjective interpretation as there is no stated comparison nor ranking of degree involved and, consequently, likely reflects the teachers' projected attitude toward the behaviour.

Other suggestions that these students may be mislabelled as emotionally disturbed (Whorton, 1966), dull (Whorton, 1966), stupid (Whorton, 1966), problem children (Fisher & Brooks, 1981; Whorton, 1966), moody (Fisher & Brooks, 1981; Whorton, 1966), and disobedient (Whorton, 1966) underscore the need for caution when identifying their characteristics. Getty and Hetu (1994) report similar findings in their recent study. In more general terms, these students may also be considered maladjusted (Berg, 1970b; Smith et al. 1995), and as displaying greater emotional variability (Berg, 1970a).

These points highlight the negative subjective attitudes that may abound when misinformed and mistaken interpretations are applied to the frequently ignored or misunderstood communication and/or social/emotional needs of these students. 'Tends to be on own–solitary' is therefore an example of how a seemingly objective statement could be misconstrued and potentially over-analyzed.

Positive Considerations. Although the manifestations of hearing loss may often be misinterpreted as being social, psychological, interpersonal, personality, and cognitive problems, there are positive sides to this somewhat bleak picture. It is not a given, for instance, that all students who are hard of hearing will experience all of these difficulties (Warick, 1994), although most will at one time or another during their school years and beyond. Another optimistic point is that many of these problems can be prevented, reduced, and/or eliminated with awareness of the challenges faced by these students and with appropriate intervention (Bandura, 1971, 1976, 1977 a/b, 1989; Bandura & Walters, 1963; Antia & Kreimeyer, 1987; Paul & Quigley, 1990; Ross et al. 1982; Warick, 1994; Wright, 1970). Although not all students with hearing loss experience negative social and emotional difficulties, effective teachers will be aware of the potential and will be proactive in their awareness of the social/emotional needs of all of their students. As Warick points out, "we should look more closely at *why* so many [hard of hearing] respondents are [not coping well]" (p. 259).

Labels. For the present thesis, the proposed intervention model for students who are hard of hearing is based on the social learning theory proposed by Bandura and his associates. This is therefore a good point at which to discuss their perception of labels. Because of the behaviouristic element of their social learning principles, Bandura and Walters (1963) focus on observable functioning as opposed to labels of mentally "ill" or "healthy", "disturbed", "normal", and "abnormal". These terms tend to develop out of personal bias based on the training, personal experience, and theoretical orientation of the person making the judgment, according to these researchers. As discussed, "negative" labels have been applied to students who are hard of hearing. However, internal beliefs held by individuals affect their overt behaviour. Consequently, sometimes inappropriate referrals are made to other professionals. Alternatively, these students may benefit more from intervention at the source of their problem–deficient social interaction skills–which in many ways will ultimately enhance their social/emotional development and status.

Summary

Research has established that the school environment plays a significant role in the social/emotional development of students. The purpose of this chapter was to reinforce the parameters of the study by clearly placing hard of hearing students in regular classrooms. Special considerations impacting the social/emotional development and status of these students in these settings were enunciated, including the role of hearing and the impact of exposure to negative stereotypical attitudes. Sources and consequences of such attitudes were identified from the literature.

An overview of general mental health and social skills considerations then lead into the reporting of research specifically addressing the social/emotional development and status of students who are hard of hearing. Social/emotional characteristics of these students were identified and summarized. Although some research results are conflicting, the majority of studies seem to indicate that these students are at risk for social/emotional difficulties and that their needs are often overlooked. Conclusions drawn from these analyses provide the basis for Chapter V which is a proposal for effective intervention to enhance the social/emotional development and status of students who are hard of hearing.

V. EFFECTIVE INTERVENTION TO ENHANCE THE SOCIAL/EMOTIONAL DEVELOPMENT AND STATUS OF STUDENTS WHO ARE HARD OF HEARING

Paul and Quigley (1990) maintain that successful intervention strategies must be established "to increase and maintain high levels of socialization skills" (p. 64). They further indicate that students in mainstream settings who are hard of hearing need more opportunities for interaction with hearing peers and to be taught effective socialization strategies. They also suggest that hearing peers need to learn how to interact with their peers who have hearing loss.

Antia (1985) reviewed the literature on social integration of students with hearing loss. She concludes that results of the cited research are inconclusive regarding a number of factors affecting the successful social integration of these students. However, it is clear that social interaction involves more than just physical placement of these students in a regular classroom (Antia, 1985; Lee & Antia, 1992). Stinson and Lang (1994) elaborate on this in their comments:

> In order for [an inclusive] approach to be successful with...hard of hearing [students], it must be able to effectively integrate them into the social milieu and the learning activities of the school and classroom. Such integration would certainly include rewarding friendships and feelings of social support, as well as participation in instructional activities at a level that ensures effective acquisition of academic skills (p. 156).

Antia (1985) also believes in the importance of "teaching the social communication skills necessary for initiating and maintaining positive interactions, and [of] providing structured opportunities for positive interactions with normal-hearing peers" (p. 285).

Overview of Chapter

Based on the previously mentioned research and the findings of research reported in Chapter IV, the present writer concluded that an effective intervention strategy is needed to

enhance the social/emotional development and status of students who are hard of hearing. This chapter begins with a discussion supporting the use of theoretical models useful in achieving this goal. The justification for selecting the social learning principles devised by Bandura and his associates is given. An introduction to the development of this theory is provided in this chapter including a brief overview of its underlying principles. Appendix C extends the summary in a more detailed discussion of the theory.

The primary purpose of this chapter is to identify those elements of the theory that may be extended and effectively applied to hard of hearing students. Table 6 concludes this chapter. It is a point form summary of specific areas of difficulty experienced by these students, identifying which social learning principles would be effective for overcoming the problems. The benefit of each principle, or how each principle may enhance the social/emotional development and status of students who are hard of hearing, is identified and summarized.

Use of Theoretical Models

Elaborating on Antia's (1985) position, Lee and Antia (1992) propose that Allport's contact theory may be used as a basis for understanding and enhancing social interaction of hard of hearing students with their normally hearing peers. This sociological theory may be expanded upon when juxtaposed with the social learning theory proposed by Bandura and his associates, the theoretical model upon which the recommendations of the present writer are based. As contact theory examines group dynamics and the shaping of environmental conditions for promoting social relations, and social learning theory is based on interactional principles, the two theories complement rather than contradict each other.

Acceptance of Hearing Loss

Corroborating that social interaction does not "just happen", Laszlo (1994) adds another dimension. He suggests that an acceptance of one's hearing loss and awareness that this condition is not unique will further reduce the isolation often felt by these students. As mentioned earlier, children develop self-awareness and understanding of the world

around them by their interactions with people. Exposure to adult positive role-models who are hard of hearing, which would be supported by social learning principles (Bandura, 1976, 1977b), and to information about hearing loss could, therefore, empower the student who is hard of hearing and help to reduce their feelings of isolation (Laszlo, 1994). Bandura (1976) cautions, however, that provision of factual information alone has no significant effect on behavioural changes. Nonetheless, internalization of an identity as a person who is hard of hearing, with unique needs, whereby one is not felt to be so different as to not belong will greatly assist the student with hearing loss towards self-efficacy. As will be discussed later, beliefs about one's capabilities can reciprocally impact interactions with one's environment, i.e., social interactions (Bandura, 1989).

When a person continually tries to "fit in"– to not be perceived as different–a tremendous emotional toll is taken. As reported earlier, 3% of the student population is hard of hearing, yet frequently, the student with this disability will be the only one in his/her classroom and often, in the school. Moreover, appearing normal, using voice and hearing to communicate, these students are easily overlooked. To help alleviate some of this, assertiveness training, for example, which can be effectively taught using social learning principles (Bandura, 1976; Kazdin, 1976), would likely benefit many students who are hard of hearing.

Responsibility of Educators. It is the responsibility of the adults around these students to reflect in their information and attitudes, an awareness of the needs for accurate information about hearing loss and technical support. They must also reflect an awareness of the unique communication and social/emotional needs of students who are hard of hearing. This provides the model whereby these students may internalize beliefs about their personal capabilities. Identifying positive attributes enhances self-efficacy which, in turn, enhances social/emotional status. Acceptance of hearing loss by hearing people and by persons who are hard of hearing themselves does not, however, imply that students with hearing loss are the same as their hearing peers. Nor does it imply that their needs are so

aberrant that the students should be isolated. The inclusive education philosophy purports to embrace diversity. This must correspondingly be communicated to students who are hard of hearing through factual information, exposure to positive role-models, and through one's attitude. Everyone benefits from such an approach.

Using Social Learning Principles

Antia and Kreimeyer (1987, 1988) conducted studies to develop or adapt intervention techniques to enhance social interactions of students with hearing loss with their hearing peers. It is noteworthy that the results, indicating improvement in this area, are attributed to teacher instruction and modeling of positive social interaction skills. The intervention program of the research also included the structuring of the classroom environment and activities to encourage frequent opportunities for increased peer interactions.

The social learning theory of Bandura and his associates provides a basis upon which effective strategies may be developed to accomplish that to which the previously mentioned researchers refer. Besides direct intervention after difficulties present themselves, social learning theory may provide another avenue for assisting students who are hard of hearing. As research in this area considers ways to effect change of dysfunctional behaviour, one might also consider the consequences of proactive activities. This would occur when social skills considerations exist automatically as part of the curriculum and the importance of which would remain in classroom teachers' awareness. So, besides correcting deviant behaviour, ongoing inclusion of social learning principles can attenuate difficulties in the first place. In this way, social learning methods emphasize teaching positive incompatible behaviours as one way to decrease aberrant behaviours and maintain appropriate ones (Bandura & Walters, 1963; Schloss, 1984).

Ross et al. (1991) also provide support for the effectiveness of social learning methods with students who are hard of hearing. They indicate that an important consequence of mainstreaming these students is the opportunity for exposure to peers with appropriate social behaviours. It is also reported that direct intervention to develop social skills may be

required, as well, to enhance the success of these students both short-term (during their school years), and in the long-term (after reaching adulthood and independent integration into hearing society) (Alberta Education, 1995; Ross et al 1991). A more extensive discussion of the specific benefits of intervention with social learning principles to these students occurs later in this chapter.

Social Learning Theory

As discussed in *The Development and Application of Social Learning Theory: Selected Papers* (Rotter, 1982), the social learning theory (SLT) of personality development was first published in 1954 by Rotter. The theory provides an approach to study how individuals interact with their environment as a way to predict and change behaviour more efficiently. It includes both reinforcement theories and cognitive theories. The original theory evolved from a synthesis of the knowledge and theorizing available post World War II, strongly influenced by the work of Alfred Adler. The reader is referred to Rotter's (1982) book for a more comprehensive historical account of social learning theory's evolution, which includes discussion of other researchers' work.

Theory Developed by Bandura and His Associates

Since its inception, other theorists, including Bandura and his associates, have refined and expanded upon the original SLT. Although Bandura maintains a similar perspective to that of the originator, Rotter (1982) nonetheless maintains that "Bandura's approach still differs from this social learning theory [by Rotter and his colleagues] in many ways; most important, it does not offer a systematic way to describe or explain relatively stable, generalized aspects of personality" (p. 4). Nevertheless, Rotter (1982) admits that "learning through observation, modeling or imitation as Bandura and Walters (1963) have pointed out, can be a source of change in expectancies for behavior-reinforcement sequences" (p. 258). This statement was made in reference to treatment plans for patients' frustrations resulting from "misinterpretation of the behavior, reactions and motives of others" (p. 258). This may also be a problem for students who are hard of hearing. On the other

hand, Bandura (1977b) asserts that Rotter's SLT is "quite inadequate for explaining the occurrence of a response that has not as yet been learned" (p. 2) and therefore attests to the necessity for extending and modifying some of the earlier principles of SLT.

Differences aside, suffice to say that Bandura's theory has evolved from previous research and all have merit, thus warranting this brief introduction to the evolution of SLT. Nonetheless, the present writer focusses principally upon the work by Bandura and his colleagues as the basis for discussion regarding the enhancement of the social/emotional development and status of students who are hard of hearing. This perspective was selected because of the emphasis on the interrelationship, or reciprocal causality, of imitative social learning and cognitive processes as well as because of the importance placed on self-efficacy.

This approach also considers social development to extend "beyond the isolated ability to exhibit socially skillful behavior" (Schloss, 1984, p. x). Stability and predictability of appropriate behaviours in a variety of settings are also crucial components of appropriate social development and acceptance (Schloss, 1984). As Schloss (1984) points out: "it is not enough for a student to know how to behave. Educational efforts must encourage the child or youth to exhibit these behaviors repeatedly in appropriate social situations" (p. x). Emphasizing functional and interactive relationships between the individual, the behaviour, and the environment, many of the proposed principles seem "to be "good common sense" as they have been applied for centuries by parents and educators" (Schloss, 1984, p. 7). A brief overview of Bandura's ideologies is, therefore, in order.

Basic Premises

The early work by Bandura and Walters (1963) had a strong emphasis on learning through imitation driven by the individual's need for reinforcement. It was asserted that children learn in order to receive reinforcements which they eventually administer to themselves, thus striving toward the goal of self-control–a trade mark of socialization. This focus on drive was later changed with emphasis then given to expectancies and other

cognitive variables (Rotter, 1982), addressing more the hypothesis of reciprocal interaction between individuals and their environment.

Behaviourism vs. Interactionism. Bandura (1977b) draws distinctions between the reciprocality of social learning theory and unidirectional environmentalism as, for example, in operant conditioning. Further distinctions are made in the statements: "Behaviorists generally emphasize environmental sources of control, whereas humanists tend to restrict their interest to personal control. Social learning encompasses both aspects of the bidirectional influence process" (Bandura, 1977b, p. 206). His socio-behavior theory is, therefore, presented from an interactionist perspective. The role of imitation, reinforcement patterns and social behavior, self-control development, behaviour modification, and self-efficacy are all issues of concern in this theory of personality development. Bandura (1977b) summarizes the basic premises of SLT by stating:

> Social learning theory approaches the explanation of human behavior in terms of a continuous reciprocal interaction between cognitive, behavioral, and environmental determinants. Within the process of reciprocal determinism lies the opportunity for people to influence their destiny as well as the limits of self-direction (p. vii).

Underlying Principles. Succinctly overviewing the underlying principles for achieving enduring behavioural changes, Bandura (1976) states that they include: "i) induction through modeling, ii) refinement through enactment, and iii) reinforcement through successful use,...[thus combining] modeling with guided reinforced performance" (p. 248). Social learning theory therefore "distinguishes among three basic change processes: i) *induction*; ii) *generalization*; and iii) *maintenance* of behavior" (Bandura, 1976, p. 252). Furthermore, changes are effected across the behavioural, affective, and attitudinal response systems (Bandura, 1976). Specific techniques for effective implementation of such an approach may be found in Bandura (1976).

Moreover, Bandura (1989) states that a "system of self-regulation combining *proactive guidance* with *reactive adjustments* is best suited for adaptive functioning, especially under changing circumstances" (p. 1181) and emphasizes the importance of symbolic functions in

the self-regulatory process (Bandura, 1977b). This could be interpreted as the ultimate goal towards which teachers could strive in the implementation of social learning theory for social skills training.

Appendix C contains a more detailed discussion of the principles of this social learning theory. Imitation, or modeling, is discussed as well as factors influencing this component of social learning theory, followed by an overview of the role of reinforcement or motivational processes. A description of the development of self-control and aggression control then precedes the discussion of self-efficacy, which concludes the synopsis of social learning theory.

Effectiveness of Social Learning Theory for Students Who Are Hard of Hearing

It has been shown in earlier sections that students who are hard of hearing may have social and emotional difficulties due to limited hearing acuity and commensurate communication problems. Bandura and Walters (1963) demonstrate how their "social-learning principles can account for the acquisition and maintenance of responses that deviate from social norms" (p. viii). Concomitantly, their principles are well-suited for enhancing social development and acquiring appropriate behaviours as "social training consists largely [of] teaching a child to express aggressive, dependency, and other social responses only in certain ways" (Bandura & Walters, 1963, p. 20). Hence, the ultimate goal of teaching self-control. Social learning theory may therefore be effective for developing social skills in students who are hard of hearing. Specific benefits for these students of implementing SLT principles are discussed in the following sections. General benefits of using these principles to enhance social/emotional development and status are illustrated in Appendix C in Figure C.1.

Benefits for Oral Communication Difficulties

For students who are hard of hearing, the principles of social learning theory are well-suited to enhancing their social/emotional development and status for a number of reasons. For example, performance modeling of desirable behaviours reduces or eliminates the burden of language and oral communication. Also, because of the communication difficulties inherent to hearing loss, the student may have historically experienced a reduced amount of direct verbal interaction. This may sometimes result in immature social skills, demands for immediate gratification, egocentricity, and rigidity (Schloss, 1984). However, with appropriate attention to the listening environment, the social learning tactic of reasoning, for example, not only enhances language skills, but also provides the structure for teaching students who are hard of hearing to: i) delay rewards; ii) consider others' needs, opinions, and desires; and iii) understand that responses must be altered to conform to different situations and a variety of social cues (Schloss, 1984).

Influences of Observer Characteristics

Students who are hard of hearing have a sensory disability. As discussed previously, this may have a tremendous impact on their social/emotional devlopment and status, stemming primarily from their communication difficulties. It has also been shown that hearing loss affects language development and academic achievement.

The individual differences or characteristics of students who are hard of hearing, as discussed in Chapter II, comprise the observer characteristics considered in social learning theory. These aspects may be accommodated in the application of social learning principles. Because of its reciprocal interactionist perspective, SLT accounts for characteristics of the observer. Therefore, implementation of the modeling and behaviour rehearsal tactics, for example, may very effectively accommodate for the special needs, or observer characteristics, of these students. Specifically, these principles can make verbal expectations more concrete (Schloss, 1984), reducing the oral component of interactions. Schloss (1984), for example, describes the scenario in which a verbal suggestion is given

for a student to play less roughly. Pragmatic applications of social learning principles are then described in the statements: "[A verbal suggestion] may be accompanied by the teacher modeling a more desirable way to play. The [student] may also be guided through a rehearsal of the new behavior" (Schloss, 1984, p. 96).

Attentional Processes: The Role of Discrimination

Awareness of distinguishing features of modeled behaviour and selective discrimination of behaviour reproduction are key components of effective observational learning. As subtle social cues often regulate behaviour (Bandura, 1977b), it may be even more crucial for the student who is hard of hearing to be made aware of the distinctive characteristics of modeled behaviour.

It is also apparent that one's social contacts determine what behaviours will be readily observed (Bandura, 1975, 1977b). Therefore, students' social interactions will be determined by environmental constructs (Bandura, 1989). This further supports the efficacy of teaching students who are hard of hearing in regular classrooms, where they will have greater opportunity for exposure to appropriate social modeling. It has been shown that social learning is enhanced by exposure to a variety of models in different settings as well as by having opportunities to reproduce modeled behaviours and skills under different circumstances (Bandura, 1975, 1989).

Influence of Model Characteristics

As students with hearing loss tend to be more dependent upon adult interaction (Antia, 1982, 1985), intervention with SLT principles should be effective for these students. As discussed in Appendix C, Bandura and Walters (1963), report that adult models are more effective for inducing behavioural change. It is also reported, however, that peers exert influence as well (Anderson, 1937, as cited by Bandura & Walters, 1963; Kazdin, 1976) which supports the efficacy of inclusive education for students who are hard of hearing.

Reinforcement or Motivational Processes

It has been noted that environmental rewards are "only potentialities until actualized by appropriate behaviour" (Bandura, 1977b, p. 196). Returning to the question of inclusive education for a moment, this implies that although all students in a classroom, hearing or hard of hearing, are placed in a potentially rewarding environment, each student will experience it differently. Their experiences will depend upon the reciprocal interaction of their own behaviour with the socializing agents surrounding them.

It is important to consciously attend to reinforcement strategies for students who are hard of hearing. It is reported that the presence of a disability reduces the student's ability to fulfill the expectations of parents, teachers, and peers in terms of academic and social interaction success (Schloss, 1984). Consequently, disabled students may derive little satisfaction from their environment, and may thus engage in socially disruptive behaviour to gain any type of support or recognition. In some cases, these students may consider negative attention preferable to no attention. Inappropriate behaviour then limits the opportunities for positive reinforcement to be linked with prosocial behaviour. The cyclical nature of the impact of a disability is shown in Figure 3. This is multifaceted, beginning with the limitations imposed by the disability on a student's ability to engage in rewarding activities. Repeated failure to receive positive reinforcement may then cause the student to engage in disruptive behaviour. Opportunities for positive performances to be linked with approval/positive reinforcement such as adult approval or good grades are consequently limited. Thus, the student's repertoire of socially appropriate behaviours is weakened which further limits the student's abilities and reduces opportunities for positive reinforcement (Schloss, 1984).

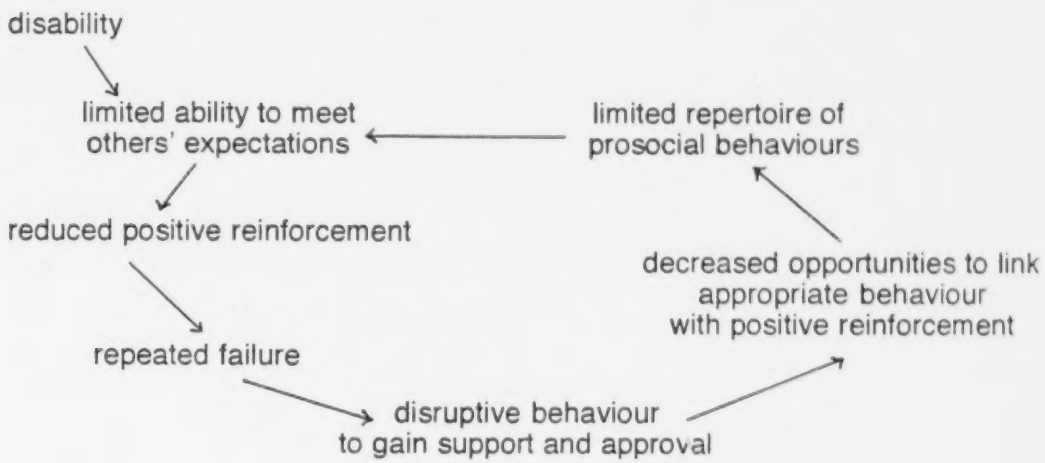

disability
limited ability to meet others' expectations
limited repertoire of prosocial behaviours
reduced positive reinforcement
decreased opportunities to link appropriate behaviour with positive reinforcement
repeated failure
disruptive behaviour to gain support and approval

Figure 3 Impact of Disability on Receipt of Positive Reinforcement and Repertoire of Prosocial Behaviours

It is therefore critical that rewarding situations be available to students who are hard of hearing and that educators (and parents) recognize the source of the limited social repertoire of these students. Conscious provision of positive reinforcement whenever possible as per social learning methods, could thereby interrupt the cycle, as illustrated in Figure 3. Increased opportunities to meet the expectations of others and/or enhanced positive reinforcement of prosocial behaviour could thus increase students' repertory of social skills. All of this could ultimately enhance their social/emotional development and status. This will be discussed in greater depth.

Self-Efficacy

The need for professionals to identify and help develop students' strengths is discussed in Appendix C. For the hard of hearing student, in particular, it is confirmed that s/he must "become aware of his or her ability rather than his or her disability" (Green, 1976, p. 79). In his clinic work, Harvey (1989) has found that, for some individuals with hearing loss, their disability is affiliated with self-deprecating beliefs as he states:

> [Some individuals] have been taught to view [their] hearing loss as a "package deal": [their] being hard of hearing came 'delivered' with being 'out to lunch, not too bright, stupid. All that got attached, connected, to how [they] defined [their] disability. It was as if being hard of hearing also meant being stupid (p. 97).

It has also been noted that a "typical reaction to hearing loss is a pervasive feeling of helplessness" (Harvey, 1989, p. 112). An illusion of incompetence may thus develop as a result of sustained inability to avoid negative consequences (Harvey, 1989). Passivity and lack of self-efficacy, or positive beliefs in one's competency, are consequently engendered. So, for these students, following social learning principles, exposure to successful role models who are also hard of hearing as suggested by Laszlo (1994), may enhance self-efficacy and, concomitantly, social/emotional development and status. Essentially, what must occur is a separation of "the disabling and handicapping effects of being hard of hearing" (Harvey, 1989, p.99). The British Columbia Ministry of Education (1994) contains further support for this consideration as well as some other specific suggestions for improving the self-efficacy of these students.

The effects of not believing in one's capabilities are discussed in Appendix C. Succinctly though, it is noted that feelings of poor self-worth and self-confidence leading to depression and decreased motivation may result (Bandura, 1977b, 1989). As these are some characteristics that may be applied to students who are hard of hearing, the necessity for enhancing their self-efficacy is clear. Harvey (1989), for example, states:

> Hard-of-hearing persons in treatment too frequently accept a wide array of self-deprecatory feelings, beliefs, images, thoughts, and so on, as self-evident truths that are beyond scrutiny. Such cognitive statements have been learned from significant others in the past and often are reinforced by others in the present ecology. They have become internalized as a set of beliefs, assumptions, and images about oneself (p. 95).

Therefore, and also because SLT promotes the effectiveness of vicarious experience as a source of efficacy expectations, observation of successful role models who are also hard of hearing (Laszlo, 1994) is one suggestion that should enhance the self-efficacy of these students.

Discussion

It has been shown that hearing loss as well as other types of disabilities usually impact on a student's social skill proficiency. The social/emotional characteristics of students who are hard of hearing was discussed earlier as well as reasons for their difficulties. These reasons were also highlighted in Figure 3 on page 86 which showed the cycle resulting from poor social skills stemming directly from a disability. It is also implied in the discussion of Figure 3 that intervention with social learning tactics will enhance the social skills abilities of students who are hard of hearing. Consequently, their social/emotional status should improve. Therefore, the cycles illustrated in Figure 3 and Figure C.1 in Appendix C, which illustrates the benefits of observational learning, may be merged to show the efficacy of using social learning principles with students who are hard of hearing. This merger is depicted in Figure 4 on the next page. Thus, these principles should: i) effectively break the cycle of repeated failures experienced by many of these students; ii) enhance their self-efficacy and self-confidence; and iii) promote the development of prosocial behaviours.

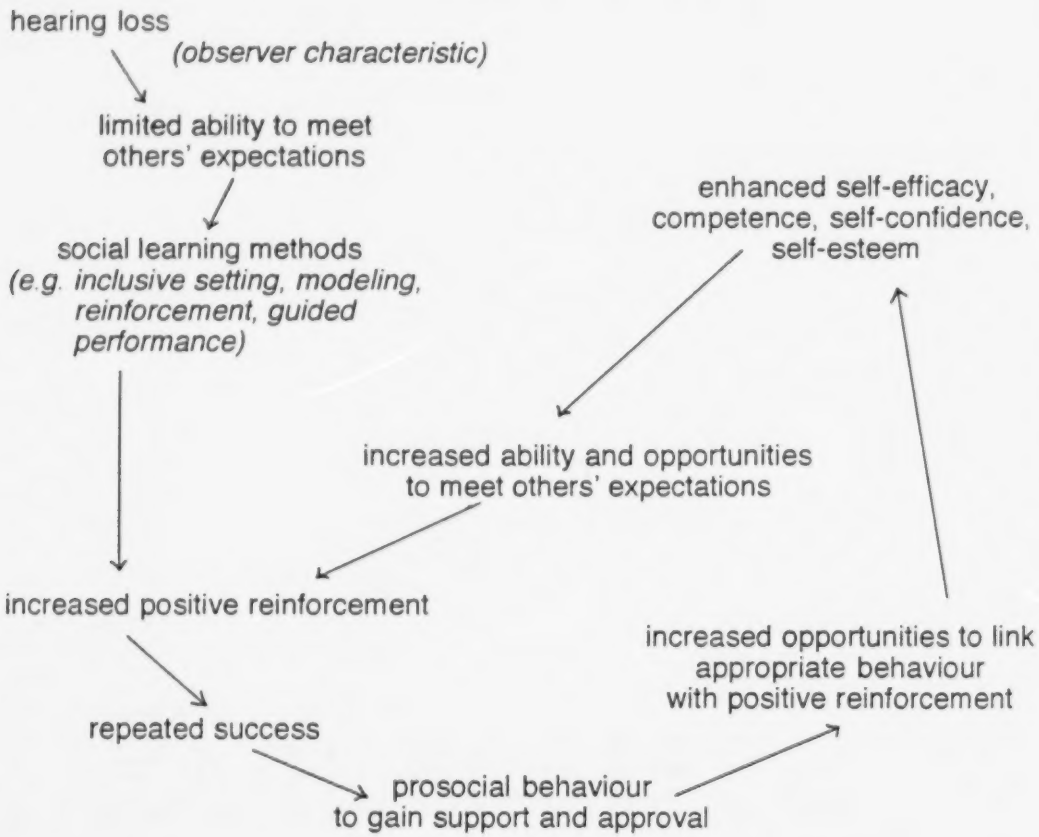

hearing loss
(observer characteristic)
limited ability to meet others' expectations
social learning methods (e.g. inclusive setting, modeling, reinforcement, guided performance)
enhanced self-efficacy, competence, self-confidence, self-esteem
increased ability and opportunities to meet others' expectations
increased positive reinforcement
increased opportunities to link appropriate behaviour with positive reinforcement
repeated success
prosocial behaviour to gain support and approval

Figure 4 The Cyclical Effect of Social Learning Methods on the Social/Emotional Development and Status of Students Who Are Hard of Hearing

More specifically, Table 6 summarizes the specific benefits of using social learning principles with students who are hard of hearing in inclusive settings. Social learning theory, considering the reciprocal interactions of observer characteristics (e.g., the student's hearing loss), model characteristics (e.g., hearing peers and teachers, as well as hard of hearing role models), the environment (e.g., the inclusive school setting), and reinforcement, is an effective framework for addressing the special needs of and enhancing the social/emotional development and status of students who are hard of hearing.

Table 6

Benefits of Specific Social Learning Principles for Students Who Are Hard of Hearing in Inclusive Educational Settings

Difficulties Experienced by Students Who are Hard of Hearing	SLT Principle	Benefits
• delayed or deviant social skills	• Inclusive Setting • Teaching and reinforcing positive incompatible prosocial skills	• vicarious and direct exposure to appropriate social models (adults and peers) • increases the incidence and maintenance of positive behaviours • decreases aberrant behaviours
• oral communication	• Modeling • Rehearsal • Guided Practise	• verbal expectations are more concrete • opportunities to reproduce modeled behaviour and skills under different circumstances • exposure to positive role models who are hard of hearing increases students' self-efficacy
• misses subtle social cues	• Attentional Processes: Discrimination	• distinguishable model characteristics are made explicit
• limited ability to engage in rewarding activities • limited experience with positive reinforcement	• Reinforcement	• specific attention to provision of positive rewards increases repertoire of prosocial skills and opportunities for positive interaction, thus improving social/ emotional development and status
• deprecating beliefs	• Self-Efficacy	• specifying students' strengths and exposure to positive role models who are hard of hearing improve students' beliefs in their capabilities • separation of disabling and handicapping effects of hearing loss

Summary

There were two purposes of this chapter. The first intent was to summarize the social learning theory adapted by Bandura and his associates. This provided the basis for the second purpose which was to predict the effectiveness of the theory's use with students who are hard of hearing. Justifying the need for social skills training intervention for these students, Figure 3 illustrates the negative effect of a disability on an individual's repertoire of prosocial skills. Potential benefits of using the principles of this theory for hard of hearing students are summarily identified in Figure 4 and in Table 6.

VI. DISCUSSION OF FINDINGS AND IMPLICATIONS

Because children with slight to moderate hearing losses are usually taught in regular classes by teachers with no special training (Chorost, 1988), it is important that educators have information about the special educational and social/emotional needs of their students. As teachers play the most important role in an inclusive program, it is repeatedly suggested that they need a basic understanding of the disabling and handicapping factors for hard of hearing students and effective strategies to help alleviate some of these factors (Martin et al. 1988; Smith et al. 1995). Ross (1990c), for instance, cautions that appropriate education, and not just mainstreaming, is the issue. Children, their needs, and their interests focus our efforts in the educational process. The physical placement of a hard of hearing student in a regular classroom is, therefore, not in itself a criterion of educational success (Antia, 1985; Lee & Antia, 1992; Ross, 1990c; Stinson & Lang, 1994).

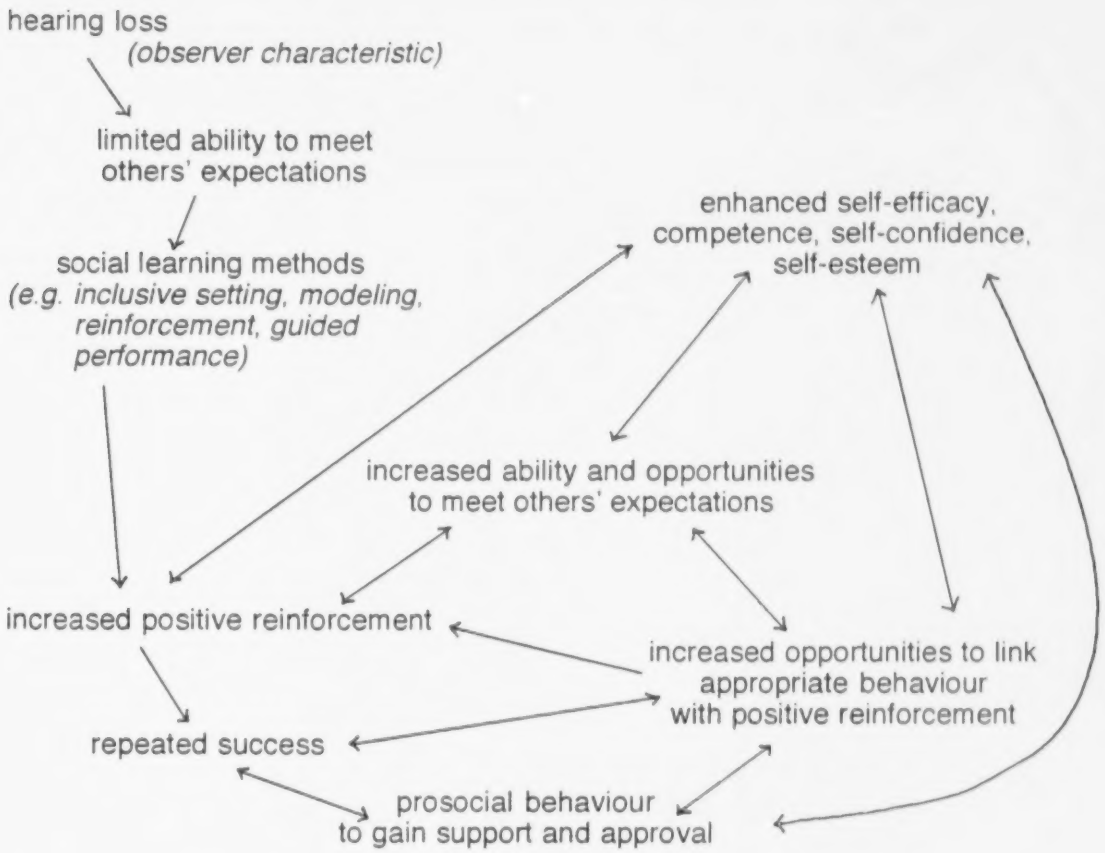
Mainstream education for students with hearing loss is historically tracked and shown in Appendix B. This timeline reveals that recognition of the unique needs of students who are hard of hearing is a relatively recent occurrence. It is also shown in Chapter IV that this awareness remains somewhat inconsistent and that negative stereotypical attitudes persist towards these students. The effects of others' attitudes on the social/emotional development and status of these students are discussed in Chapter IV, as well.

Chapter IV also contains an in-depth discussion of the direct impact of the communication difficulties experienced by these students on their social/emotional development and status. Although many of these students will experience delayed social skills which, in turn, effect their emotional well-being, not all will. It is also clear from the research that the emotional and behavioural anomalies exhibited by these students are not due to any innate personality abnormalities. Research indicates that direct intervention may be necessary for many hard of hearing students to teach them prosocial skills, which, in turn, will enhance their social acceptance and their emotional well-being. It is asserted in

the present thesis that many of the difficulties experienced by these students may be explained by and reduced by the social learning theory principles of Bandura and his associates. The reciprocal interactions of people and their environment are proposed as determinants of social/emotional development and status in this theory. The principles of this theory thus provide a framework educators may use to enhance the social/emotional development and status of students in regular classrooms who are hard of hearing. An overview of this theory is discussed in Appendix C. Specific implications for these students are discussed in Chapter V.

Effectiveness of Social Learning Theory

Because of the impact hearing loss has on communication and social interactions, it has been shown how these students may be disadvantaged for learning social skills. Figure 3 on page 87, shows the cyclical effect a disability has on development of prosocial skills. Figure C.1 on page 210, illustrates the benefits of observational learning in a general way. It is then shown in Chapter V how direct intervention with social learning principles may be an effective and appropriate approach for enhancing the social/emotional development and status of students who are hard of hearing. This revised cycle is summarized in Figure 4 on page 90. A more elaborate depiction of the interactive qualities of social learning principles on the social/emotional development and status of students who are hard of hearing is shown in Figure 5 on page 95.


hearing loss
(observer characteristic)
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social learning methods (e.g. inclusive setting, modeling, reinforcement, guided performance)
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increased ability and opportunities to meet others' expectations
increased positive reinforcement
increased opportunities to link appropriate behaviour with positive reinforcement
repeated success
prosocial behaviour to gain support and approval

Figure 5 The Effect of Social Learning Methods on the Social/Emotional Development and Status of Students Who Are Hard of Hearing Based on the Reciprocal Interactive Properties of Social Learning Principles.

Summary of Research Findings

Conclusions drawn from reviewing the literature are:

- Although some research findings are conflicting, the most commonly held opinion is that students who are hard of hearing are at risk for social/emotional difficulties.
- Research seems to have adequately identified the social/emotional status and characteristics of hard of hearing students.
- The emotional and behavioural anomalies exhibited by these students are not due to

innate personality abnormalities.

- How to address the social/emotional needs of hard of hearing students has been neglected in research.
- Hearing loss can result in communication, educational, emotional, and social problems which may trigger negative reactions from parents, peers, educators, and society in general. These negative reactions may further exacerbate the previously mentioned difficulties experienced by many hard of hearing students.
- Hearing loss may negatively affect incidental learning of social rules.
- Effective communication is the keystone to social/emotional well-being.
- Many social skills behaviours are language and/or communication based.
- Schools play an increasingly important role in the social/emotional development of students.
- Social communication plays a large role throughout a student's school life.
- The majority of hard of hearing students are educated in regular classrooms by teachers with no background in teaching students with hearing loss.
- Negative stereotypical attitudes of educators and classmates may be triggered by the presence of students wearing hearing aids, and/or lacking effective communication repair strategies, and/or having speech impediments.
- Negative stereotypical attitudes of educators may be reinforced by misleading and erroneous information sources.
- The social development of disabled students is the most emotionally charged aspect of special education.
- Educators want information about teaching disabled students.
- Increased information improves educators' comfort about teaching disabled students.
- Exposure to social models can directly or incidentally influence and teach human behaviour.
- The social learning principles developed by Bandura and his associates effectively take hearing loss into account and address the issue of self-efficacy.
- Lack of self-efficacy is an issue of concern regarding students who are hard of hearing.

When considering these findings, one might make note of a reminder by Fraenkel and Wallen (1993) who comment:

Qualitative researchers [tend to be] less definitive, less certain about the conclusions they draw from their research. They tend to view them as ideas to be shared, discussed, and investigated further. Modification in different circumstances and under different conditions will almost always be necessary (p. 403).

Discussion of Research Findings

Although the ability to distinguish degrees of hearing loss has been possible since the 19th century, effective use of hearing aid technology and interest in aural rehabilitation has only occurred since after the Second World War. Nonetheless, in the past 50 years, little progress has ensued regarding attention to the social/emotional needs of students with mild to moderate hearing loss. Research completed during that time has shown that these students' needs are often forgotten.

Forgotten Needs

The findings of the present writer's research, as discussed in Chapter IV, indicate that there are serious social and emotional consequences of hearing loss. It is also apparent that these students receive their education almost exclusively in inclusive classrooms. Classroom teachers play a critical role in determining the academic, vocational, social, and emotional successes of an educational experience for their students. Unfortunately for students with hearing loss, research shows that the majority of regular education teachers have no background–training or courses–for teaching these students. Further aggravating the situation for students with mild to moderate hearing loss, the present writer concludes that the literature available for these teachers tends to promote negative stereotypical attitudes by setting up unrealistic expectations and by providing misleading and erroneous information. Furthermore, the continued emphasis on the communication, academic, and social/emotional needs of students who are d/Deaf tends to de-emphasize the disabling and handicapping factors and the social/emotional needs of those with less than severe hearing

loss. It is also evident that considerably more research has been done on the more easily accessed d/Deaf population, even though there are four times as many hard of hearing individuals. There are many reasons for the limited research as discussed in Chapter IV, but they do not negate the necessity for attending to the needs of these students.

Meeting Needs

The present writer's research identifies a need to: i) acknowledge that students who are hard of hearing may be at risk for social/emotional difficulties; and ii) provide an effective method for enhancing their social/emotional status and development that takes into account the communication difficulties often experienced by these students.

Models have been presented in the literature, such as Allport's sociological Contact Theory (Lee & Antia, 1992) and a systemic model for psychotherapy (Harvey, 1989) for working with individuals with hearing loss. It is the contention of the present researcher, however, that the social learning principles developed by Bandura and his associates can be effectively implemented by regular classroom teachers. The principles have proven effective for students with other than hearing disabilities as well as for nondisabled students. The tactics are common sense and are often already incorporated into effective teaching and parenting practices. How the components of this theory may be interpreted to specifically address the needs of students with mild to moderate hearing loss have been highlighted in the present thesis.

Implications for Research

As indicated in Figure 3 on page 87, hearing loss has a direct impact on social interaction capabilities. It is therefore hypothesized that intervention with social learning principles will change the outcomes of this cycle and improve hard of hearing students' social skills. This, in turn, based on research, should improve their social interactions, thus enhancing their social acceptance. Improved social acceptance should consequently improve their emotional well-being as this is an element promoting mental health as espoused by Rodda and Cumming (1991). Future research could field test the validity and

reliability of these hypotheses. Specific social learning tactics, in isolation and/or combination could be introduced in intervention programs, potentially combining quantitative and qualitative methodologies.

Implications for Practice

Agreeing with Wright (1970) and many others, this thesis is not intended to provide a "how-to cookbook" of specific techniques for enhancing the social/emotional development and status of students in regular classrooms who are hard of hearing. Many volumes of materials have been written regarding specific techniques for use with special learners, to which the reader may refer. Provided in the present thesis, however, is identification of the social/emotional needs of students who are hard of hearing, and an overview of social learning principles and their application to these students. How the perceptions of these students by society in general, as well as by teachers and hearing peers, impact their sense of well-being has also been clearly enunciated. Readers now have effective tools with which to evaluate their own interactions with these students. Educators are also better placed to consider the efficacy of commercially available materials from a social learning perspective. Understanding of the challenges experienced by students who are hard of hearing as well as some of the reasons for such, has hopefully also been enhanced. Nonetheless, a concise review of some of the existing literature provides a model for readers to effectively imitate while involved in their own search for "how-to" enhance the social/emotional well-being of students who are hard of hearing.

General Considerations

It can be said that teachers often become human *doings* instead of taking the time to become human *beings*. Therefore, educators need to take the time to be aware of their perceptions, attitudes, and methods of interactions with all their students, particularly those who are hard of hearing. To enhance the social/emotional development and status of these students, educators can use the theory of social learning and consider what behaviours and attitudes are modeled by both teachers and students. Also, opportunities for effective model

observation must be deliberately set up for students who are hard of hearing. Conscious awareness of the unique challenges facing these students does not detract from the fact that they are students first, who also happen to be hard of hearing. Schloss (1984) succinctly explains the validity of using social learning theory by classroom teachers in the comments:

> Learning theory principles involve viewing behavior along various skill dimensions. Complex behaviors are considered to be comprised of component behaviors that are chained together. Educational programs involve directly teaching and chaining component skills until a terminal objective is met. In using these principles, the teacher systematically arranges the learning environment to produce the desired behavior change (p. 56).

Smith et al. (1995) provide some specific suggestions for working with students with hearing loss. With the exception of "help the students with normal hearing understand the nature of hearing impairment and what they can do to assist" (p. 199), all the recommendations follow the principles of good teaching of any student. "A positive, supportive, and nurturing classroom environment" (Smith et al. p. 199) and development of problem-solving abilities, for example, are goals of most classrooms, whether a student with hearing loss is present or not. These suggestions can follow the principles of social learning theory. The resource guide for teaching students who are hard of hearing or deaf distributed by the BC Ministry of Education (1994) is also similar in this respect. Except for issues specifically related to hearing loss and communication difficulties, the list of needs in this document is no different than for other students.

Resources for Teaching Social Skills

There is a great deal of information available to educators on enhancing social skills of their students. Not all, however, follow the principles of social learning theory. Nonetheless, a sampling of sources included here tend to follow observational learning methods. Some resources include both general discussion of and specific strategies for teaching social skills. Some materials are intended for the general school population, while others focus predominantly on special learners. The examples given here were selected

because of their attention to students with exceptionalities and because their philosophy is more aligned with social learning theory.

Schwartz (1990), for example, presents a list of resource materials for teachers of mainstreamed children and their non-disabled classmates to help facilitate social integration. The textbook by Andrews and Lupart (1993) also contains extensive discussions of social skill building following, to a great extent, the principles of social learning. An expanded annotation of this source is contained in the bibliography of this thesis. A more pointed use of social learning theory, specifically discussing its use with students with disabilities, is found in Schloss (1984). Among other things, the author provides specific examples and scenarios in which social learning principles may be applied.

Establishing Friendships. Green (1976) provides specific suggestions that follow social learning principles. Regarding appropriate use of models, the author discusses ways to encourage social interaction away from the classroom in the comments:

> It may be necessary to invite other children to the home; to enroll the child in Boy Scouts or Girl Scouts; to expose the child to appropriate social situations; to manipulate the environment to help the hearing impaired child grow socially and psychologically. Social maturity is a learned behavior and this learning experience needs to begin early in the life of a...child [with hearing loss]. (p. 80).

Thus, the provision of recreational and social interaction opportunities for the student with hearing loss is considered in the literature to be an important element for effective social/emotional development (Fitch, 1982).

Strully and Strully (1989) identify other needed efforts to encourage friendship-making that involve observational learning. Inclusion in the "associational life", i.e., extra-curricular activities, for example, of students with hearing loss expands their opportunities for exposure to a variety of models. Another suggestion is that "children need to be introduced to one another by other friends and interested others such as support facilitators" (Strully & Strully, 1989, p. 62). They also caution, however, that friendships

take time to develop. Introductions should occur early in the school year and be continued. The act of making introductions is a necessary social skill that can be appropriately modeled in this natural manner.

Teacher Interventions, Interaction, and Modeling. Of additional interest for promoting social/emotional development, the BC Resource Guide (1994) provides specific suggestions for classroom teachers to conduct individual interviews with their students who are hard of hearing or deaf. All of the sample questions would be excellent for interacting with each and every student, special learner or not, but are critical for improving the interaction capabilities of students with hearing loss. The authors provide the following succinct rationale for their inclusion of this section in the resource guide:

> Questions focusing on social needs and self esteem are particularly important due to the very nature of any degree of hearing loss. As hearing loss does impede communication you need to be alert to both your student's understanding of spoken language, and reading of body language, in social settings. Misunderstanding can result in difficulties interacting with peers or the student feeling a sense of frustration and isolation. All students need a sense of belonging. Your student who is hard of hearing…may need a little additional support to build that social network (British Columbia Ministry of Education, 1994, p. 14).

Sample questions in this guide consider things such as who the student is playing with and who their friends are. Asking the student if they are enjoying the lunch/recess breaks and what sorts of things they do during these times are considered appropriate. Answers to these questions can alert the teacher to areas of difficulty and provide opportunities for effective intervention following the principles of social learning theory. Furthermore, as these students may miss out on incidental information, the guide also suggests asking the student if s/he knows how to become involved in planned activities. One-on-one quiet interaction on a regularly scheduled basis has the added benefit of providing the opportunity to troubleshoot listening equipment and classroom setup from the student's perspective. It is also suggested that time be allowed for the student to ask the teacher questions in a quiet welcoming environment that is not often available in the normal course

of a school day. Again, effective modeling occurs under these circumstances. Normally hearing students, depending on the age and the individuals involved, will often feel comfortable asking the teacher questions or providing information about home or the events on the way to and from school while putting away their boots and coats or during breaks. (British Columbia Ministry of Education, 1994). As these opportunities may be inaccessible for the student with hearing loss, pre-arranged, structured time may, thus, be critical.

The reader is also referred to Hamelberg (1986) as a source of practical tips for educators. Hamelberg (1986) recommends acknowledging the arrival and departure of students with disabilities to encourage and model their acceptance for their classmates. The positive interactions at these times between teacher or educational assistants and students engender positive feelings within the students which, in turn, enhance students' scholastic and social performances and feelings of self-efficacy and inclusion.

As well, some "researchers have attempted to develop or adapt intervention techniques to improve the social interactions of hearing-impaired students with their hearing peers" (Paul & Quigley, 1990, p. 63). Antia and Kreimeyer (1987, 1988), for example, documented positive results in studies of preschoolers with slight to severe unaided hearing losses. Results were attributed to direct instruction and modeling for the teaching of positive social interaction skills. Structuring of the classroom environment and activities to facilitate and provide numerous opportunities for peer interactions were also involved in this intervention. Gradual rather than abrupt withdrawal of the intervention procedures is suggested, as well, to maintain the increased interactions between students with hearing loss and their hearing peers. This follows the principle of guided participation of social learning theory.

Peer Support/Peer Tutoring/Buddy System/Cooperative Learning. There are other specific techniques found in the literature intended to enhance the social interaction of hard of hearing students with their hearing peers. Setting up a peer support/peer

tutoring/buddy system to help the disabled student feel more comfortable is one suggestion (Alberta Education, 1995; Andrews & Lupart, 1993; Conway, 1990; Hamelberg, 1986). Besides providing students who are hard of hearing with the information they may miss and the opportunity for appropriate interaction, "such a system can foster class spirit, while encouraging sensitivity for others" (Conway, 1990, p. 153). Opportunities for appropriate modeling and constructive feedback are also enhanced by this technique.

The efficacy of the buddy system for enhancing social interaction is found in the results of an empirical study of students with hearing loss and their normally hearing peers (Fisher, Monsen, Moore, & Twiss, 1989). Previous to this study, Antia (1985) made some recommendations for enhancing social interaction based on others' work with developmentally delayed or socially withdrawn children. Fisher et al. (1989) then tested the applicability of these suggestions for students with hearing loss. The researchers conclude that deliberate intervention is essential for improving social interaction through the provision of meaningful opportunities to do so. The purposeful manipulation of the environment in such a manner must also, it is reported, include appropriate and effective social approval or feedback. An elaborated discussion of the elements for effective implementation of such an approach may be found in Antia (1985).

Cooperative Learning is a similar technique whereby "students jointly work on learning activities and are rewarded based on the group's performance" (Conway, 1990, p. 153). In addition to providing ample opportunities for observational learning, this strategy facilitates constructive interactions among students in academic and social learning activities that can generate rewards for the whole class (Conway, 1990).

Both the buddy system and Cooperative Learning provide opportunities for public acknowledgment of students' strengths (Ross, 1981). This is also supported in a study by Johnson and Johnson (1985). On the other hand, White (1981) suggests that overuse of the buddy system may discourage independence and self-reliance. There appears to be no empirical evidence to support this claim, however. Nonetheless, adhering to social learning

theory principles, guidance, support, and modeling should be gradually withdrawn anyway. Thus, White (1981) highlights the hazards of not following all the steps. Hence, teachers could not expect effective enhancement of social learning until behaviours and self-reinforcement are internalized.

Commercial Social Skills Programs. Some of the commercially available social skills programs follow the principles of social learning theory as defined by Bandura and his associates. These programs may be effective for working with students having any kind of disability. Two excellent resources from the regular education domain have been developed for formal, structured instruction of social skills, for example. These are: *MegaSkills* by Rich (1988) and the *Skillstreaming Series* by Goldstein, Sprafkin, Gershaw, and Klein (1980) which was expanded in 1984 by McGinnis, Goldstein, Sprafkin, and Gershaw in *Skillstreaming the Elementary School Child: A Guide for Teaching Prosocial Skills.* The four basic components of these resources include: i) teacher modeling of the targeted behaviour; ii) guided role-playing by the observers/students; iii) constructive feedback from the teacher and non-participants of the role-play; and iv) generalization of training through homework assignments (rehearsal of the learned skill in different settings). An expanded description of McGinnis et al. (1984) is contained in the annotated bibliography of the present thesis.

The ASSET, a social skills program for adolescents (Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1981), is another commercially available program applying social learning principles. In implementing the ASSET, teachers model each of eight social skills. Reasoning is also used to explain to students the effectiveness and usefulness of the skills. Similar to the skillstreaming programs, role-playing is an important element. Also, through homework assignments, students have opportunities to rehearse their new behaviour in a variety of settings. Andrews and Lupart (1993) include a more extensive discussion of the previously noted materials.

Limitations of the Study

Three areas, in particular, were not adequately discussed in the thesis:

1) *The parents' role in the social/emotional development of their child who is hard of hearing.*

Although the family remains the most pivotal influence on a child's social and emotional development, school life plays an increasingly important role, particularly as the child ages. The focus of this study is the influence of educators and peers in a regular school setting on the social/emotional development and *status* of students who are hard of hearing. This focus does not deny the important role played by the family but the parameters of the study define the school as the setting of this research. Implications for parents may be derived from the study's results.

2) *The roles of itinerant teachers and consultants for students with hearing loss, as well as other school personnel, such as educational assistants and school board administrators, were not specifically identified in the implications for practice.*

But, their involvement is implied when reference is made to "educators" or "teachers". Although the findings of this study are intended predominantly for regular classroom teachers (as research indicates they have very limited background with and knowledge of teaching students with hearing loss), results are, nonetheless, relevant to all educators involved in any capacity with the education of students who are hard of hearing. Therefore, specific references to individual roles were excluded because:

a) the setting of the study is the regular classroom.

Therefore, the discussion of social learning principles includes as models all members of the school community with whom hard of hearing students may come into contact in both curricular and extra-curricular settings: peers, all other students, all school personnel/staff, and school board administrators.

Specific references to individual roles were also excluded because while it is true that many hard of hearing students and their teachers work with itinerant teachers and consultants for students with hearing loss, as well as other special educators,

b) the role and pragmatic involvement of these specialists vary among school jurisdictions; and

Thirdly, specific references were excluded because

c) the discussion of Implications for Practice does not specifically identify HOW the suggested interventions are to be implemented.

3) *The discussion of Implications for Practice avoids specific direction for implementation and pragmatic application of the proposed intervention suggestions.*

This is justified by referring again to the purposes of the study which indicated that, an existing theory was extended to:

i) provide suggestions and a tool with which educators may: (a) evaluate existing practices and published materials; and (b) consider alternative practices based upon a theoretical framework; and

ii) suggest implications for further research which may or may not specifically delineate parameters for pragmatic implementation, based upon the theoretical framework developed in this study.

Further justification for not providing a "cookbook" is that general parameters may:

a) allow for greater flexibility in implementation; and

b) consider the different interaction styles of personnel and students within schools and between school jurisdictions.

Summary

The intent of this final chapter was to: i) summarize and discuss the findings of the present study regarding the social/emotional development and status of students who are hard of hearing; ii) discuss implications of these findings for practice and for future research; and iii) identify and discuss the limitations of the present study.

Selected resource and commercial materials were summarized and evaluated. A number of existing materials and programs are based upon social learning principles and have proven effective for use with disabled and nondisabled students alike. The present writer

sampled a few of these existing materials, identified their adherence to Bandura's social learning principles and modeled a framework for evaluation of resources for their effectiveness with hard of hearing students.

The framework developed in this thesis using Bandura's social learning principles, based on a review of literature, may provide a base for future research. Such research could field test an intervention program based on the findings and recommendations identified as a result of the present study.

ANNOTATED BIBLIOGRAPHY OF SELECTED CITED SOURCES

Alberta Education (Special Education Branch). (1995). *Programming for students with special needs: Teaching students who are deaf or hard of hearing.* Edmonton, AB: Government of Alberta.

Key words or phrases:
- Mainstreaming Issues
- Terminology
- Social/Emotional Considerations

This slim document is book 4 in a series of six books regarding the teaching of students with special needs in inclusive settings. The books are hole-punched and contained within a three ring binder. The publication was released in January of 1996. Although the entire series will be of benefit to educators, for the purposes of this thesis, only the section on students with hearing loss is addressed here.

This book is a valuable resource for educators, administrators, and counsellors working with these students. Twelve useful sections are contained within 79 pages which are easily read with lots of white space and effective use of forms, diagrams, and point form text. Topics covered include: measurement of hearing and hearing loss; gathering student information; implications of hearing loss, including educational, social, communication, and cultural considerations; technology; communication and language intervention; and classroom strategies. The appendixes include forms and charts for practical use. The benefit of a three-ring binder is particularly clear here as the charts and forms may be easily removed for photocopying purposes. The glossary of terms, annotations of other teaching resources, and listings of publishers' addresses, combined with the bibliography provide the educator with additional sources of information.

Alberta Education Response Centre. (1990). *A vision shared: An integration resource for teachers and administrators.* Edmonton, AB: Government of Alberta.

Key words or phrases:
- Mainstreaming Issues
- Cross Disabilities

This booklet covers many mainstreaming issues of interest to regular educators of students with special needs. Easy reading is facilitated by the point form format with lots of white space.

Alberta Education Response Centre. (1991). *Education of deaf and hard of hearing students in Alberta: 1989-1990.* Edmonton, AB: Government of Alberta.

Key words or phrases: • Hearing Impaired • Alberta Survey Results • Statistics • Recommendations

This recent monograph contains the results of a survey of all Alberta Schools regarding the education of and service delivery to students with hearing loss. The introduction and highlight pages at the beginning of the document provide a succinct overview of the contents and survey findings. With graphs, tables, and ample appendixes, this document provides updated information about the educational situation of these students. Written in a format to locate material quickly, it is a valuable resource, although with some reservations, for professionals in the field.

Questions arise regarding the reporting of degree of hearing loss in this report. For example, Appendix Table 1 indicates the degree of loss, by year and by sex using the more commonly accepted categories of mild to profound. Appendix Table A.2, reporting degree of impaired hearing by birth year, and also age at onset, however, uses the categories of "hearing is good", "some trouble hearing", "much trouble hearing", and "student is Deaf". It is explained in text that hearing is rated with amplification and these narrative categorizations are maintained throughout the document, with the exception of Appendix Table 1 identified previously. These categories are, however, subjective evaluations that are difficult to interpret, making it tedious to extrapolate which students would be classified as hard of hearing, and which as being d/Deaf. The category of "hearing is good" with amplification also has the potential to perpetuate negative attitudes of regular classroom teachers, in that there may be a discrepancy between his/her expectations of the communication ability of these students and reality.

Although the title suggests that distinctions will be specified and addressed between students who are Deaf and those who are hard of hearing, this is not the case. Students with "impaired hearing" is the preferred term throughout, which is an example of how the two distinct groups of students are often combined under one phrase. Nonetheless, even with the aforementioned weaknesses, the survey results suggest areas of need for Alberta schools in educating these students and the document contains useful background, information, and local statistics.

Alberta Education Response Centre. (1992). *Students with challenging needs: Updated facts and figures, 1992.* Edmonton, AB: Government of Alberta.

Key words or phrases: • Cross Disabilities • Statistics

This booklet provides recent local statistics of all students with special educational needs in various school settings.

Allen, T. E. (1992). Subgroup differences in educational placement of deaf and hard of hearing students. *American Annals of the Deaf, 137,* 381-388.

Key words or phrases:
- Deaf and Hard of Hearing
- Realms of Mainstreaming
- Statistical Analysis
- Educational Placement Decision Making Considerations

The study reported in this article was an analysis of the data in the 1990-1991 Annual Survey of Hearing Impaired Children and Youth. This annual survey tracks educational and demographic characteristics of deaf and hard of hearing students receiving special educational services in the U.S. The dependent variables were the type of school, amount of academic integration with hearing students, and the number of deaf or hard of hearing students attending the same school. The independent variables were degree of hearing loss, age, ethnic and racial background, and additional handicap status. The results lead to a consideration of the importance of subgroup statistics for educational policy decision-making.

Andrews, J., & Lupart, J. (1993). *The inclusive classroom: Educating exceptional children.* Scarborough, ONT: Nelson.

Key words or phrases:
- Canadian textbook

Inclusive Education:
- History
- Theories
- Socialization
- Guidelines and Policies
- Rationale and Process
- Teaching Strategies

This textbook discusses the current Canadian classroom situation in fifteen chapters divided into six parts. The following sections are particularly relevant to the present thesis:

- Transitions in Education
- Students with Special Needs (which includes those with hearing loss)
- Critical Instructional Considerations (including development of social ability)
- Emerging Issues and Future Directions

Although the contents have limited material specifically addressing the situation for students with hearing loss, this book is a valuable resource of general information. The reader seeking Canadian content, an in-depth discussion of the inclusion movement, as well as general and specific intervention suggestions predominantly following social learning theory, will find this book helpful and insightful. The extensive and appropriate citations of research are strengths of this textbook.

Antia, S. (1985). Social integration of hearing-impaired children: Fact or fiction? *Volta Review, 87,* 279-289.

Key words or phrases: • Mainstreaming • Socialization

After reviewing the literature on social integration of students with hearing loss, the author uses this information to suggest techniques to enhance the social interaction, integration, and acceptance of these students in regular school settings. These are reported in this article. Conclusions drawn from the research indicate that linguistic competence and language used as a social tool are important elements of social competency, both of which must be attended to when placing students who are hard of hearing in mainstream classrooms. Discussion suggests a possible need for teachers, on an on-going basis, to create appropriate opportunities for effective social interaction between students with hearing loss and their normally hearing peers. Specific suggestions are given to reach the ultimate goal of social acceptance of students with hearing loss by their hearing peers. Suggestions include direct teaching/coaching of social skills, with examples of how this may be accomplished and specific needed skills, as well as structuring of positive interaction situations. It is concluded that physical proximity is insufficient for enhancing the social interaction and acceptance of students with hearing loss by their peers.

Aplin, D. Y. (1987). Social and emotional adjustment of hearing-impaired children in ordinary and special schools. *Educational Research, 29,* 56-64.

Key words or phrases: • Empirical Study • Hard of Hearing • Social/Emotional

The results of this reported study do not agree with many other studies of the social adjustment of students with hearing loss. Aplin reports, in this article, the results of a study completed in Manchester. Findings are based on responses to the Bristol Social Adjustment Guide and the Rutter Children's Behaviour Questionnaire, completed by the classroom teachers of 42 hard of hearing students.

Students, between the ages of seven and 16 years, in both mainstream classrooms and segregated settings were included and the results from each setting are compared.

Results suggest that the maladjustment levels of the subjects in regular classrooms were low compared with the results of some hearing subjects of other cited research. The most commonly marked item was 'Tends to be on own–rather solitary'. This is an observation of behaviour, rather than an expression of how the student may be feeling and neither does it suggest nor imply reasons for the behaviour. Furthermore, there is no stated comparison or ranking of degree of "solitude" involved. Aplin therefore comments that teacher completions of behaviour rating scales and inventories may reflect more the teacher's attitudes toward the behaviour than an accurate indication of the behaviour itself. Moreover, the researcher indicates that withdrawn behaviour has been associated with lower non-verbal IQ. Additional factors may thus account for some of the observed behaviour and consequent perceptions of the teachers in both school settings.

It is also reported that there seemed to be higher prevalence of maladjustment among the students educated in special schools. A provided rationale for the difference suggests that students with poorer coping skills tended to be educated in segregated settings, thus possibly skewing the subject pool.

Some comments in the discussion, regarding specific cases, suggest that the students with higher maladjustment ratings may have been maladjusted despite their hearing loss. It is also suggested that even a slight hearing loss may have a negative impact on academic achievement, vocational success, and social/emotional responses. Suggestions are included for further research to investigate whether or not a difference exists between the perceptions of regular class and special school teachers.

Baldwin, S. C. (1994). Full inclusion: Reality versus idealism. *American Annals of the Deaf, 139,* 164-165.

Key words or phrases: • Inclusion • Deaf Students • Opinion paper

This article is included in the 1994 issue of the annual reference edition of the *American Annals of the Deaf.* In this brief article, the author shares his views of inclusive education for deaf students from his perspectives as a professional in as well as a consumer and product of deaf education. Striving to maintain the choice of placements available on a continuum, Baldwin cautions the reader against being too

quick to completely embrace the inclusive education movement for *all* students with disabilities, but specifically for students who are Deaf. The reader is reminded that the main intent of IDEA (*Individuals with Disabilities Education Act*–PL 94-142) is to consider each student's needs on a case-by-case basis when deciding educational placement. The concluding argument clearly summarizes which side of the debate, for or against inclusive education for all students with disabilities, the author supports: "We should cease devoting effort and energy to educating children with disabilities based on the school's location...under the illusion that these students have to become "normal" " (p. 165).

Bandura, A. (1972). Modeling theory: Some traditions, trends, and disputes. In R. D. Parke (Ed.), *Recent trends in social learning theory.* (pp. 35-61). New York: Academic Press.

Key words or phrases: • Discussion Chapter • Social Learning Theory

This chapter of a larger textbook is a discussion and explanation of social learning from the author's theoretical perspective. The paper is essentially a summary of the author's previous work although more recent empirical studies' findings are also reported. Lack of cohesion and logical progression of ideas occasionally inhibit clear comprehension, however. Furthermore, much of the material is also contained in more comprehensive documents written by the author and his associates, although not as concisely (see Bandura, 1977b; Bandura & Walters, 1963). Nonetheless, this chapter is useful for the reader wanting a quick overview of the salient points of the theory.

Bandura, A. (1975). Analysis of modeling processes. *School Psychology Digest, 4*, 4-10.

Key words or phrases: • Social Learning Theory

This brief article is excerpted from Bandura, A. (Ed.). (1971). *Psychological Modeling*. New York: Aldine-Atherton. The paper contains a succinct overview of the salient elements involved in the modeling process: the effects of modeling; attentional processes; retention processes; motoric reproduction processes, reinforcement and motivational processes; and correlates of modeling. Although repetitive of other writings, its brevity allows the reader to quickly extract some of the theory's underlying principles.

Bandura, A. (1976).Effecting change through participant modeling. In. J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counseling methods* (pp. 248-265). New York: Holt, Rinehart and Winston.

Key words or phrases:
- Social Learning Theory
- Practical Intervention Strategies

Although this chapter in a text on counseling methods is intended for therapists treating phobias, it has practical implications for classroom teachers involved in social skills training for enhancing the social/emotional development and status of their students. This observation is made from the fact that the intervention strategies are based on social learning theory and participant modeling. Elements of the theory are interwoven throughout the article, providing relevant explanations and rationales for each suggestion. An additional highlight of this valuable resource is the inclusion of the editor's brief, yet insightful, comments that either extend a point or appropriately direct the reader to additional information found elsewhere in the textbook.

Bandura, A. (1977a). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191-215.

Key words or phrases: • Social Learning • Self-Efficacy

This lengthy article contains a discussion of the relationship between self-efficacy and behaviour change from a social learning perspective. Reviewed are the elements, dimensions, expectations, and cognitive processing involved for enhancing self-efficacy as well as comments regarding differing perspectives. Analyses of recent studies supporting the theory are also included as well as suggestions for further research.

The information contained in this theoretical academic paper, although predominantly of interest to researchers and therapists, has practical implications for classroom teachers or anyone wishing to effect behavioural change and/or who are involved with social skills training.

Bandura, A. (1977b). *Social learning theory.* Englewood Cliffs, NJ.: Prentice-Hall.

Key words or phrases: • Theory Overview • Textbook

In six chapters, this textbook contains complete descriptions of all the critical features and components of social learning theory. Beginning with a discussion of the theoretical perspective, the text continues on to the following topics: origins of

behavior; antecedent determinants; consequent determinants; cognitive control; and reciprocal determinism. Most of the material is specific to treatment of psychological disorders, such as anxiety, defensive behaviour, aggression, and schizophrenia, with little reference to classroom practice, although generalizations and practical applications for school settings are possible. Correlations, differences between, and extensions of different theories are discussed, as well. For example, Piaget's work is compared and contrasted at several points in the book. Further, distinctions between the reciprocality of social learning theory and unidirectional environmentalism are underscored. Compared with earlier writings, such as Bandura and Walters (1963), Bandura's interactionist perspective is heightened in this later volume.

Written in a style similar to a lecture presentation, the contents contain less reference citations than previous works by the author and his colleagues. A novice to social learning theory might find more explicit references helpful, as background knowledge of the reader is often assumed by the writer. Nonetheless, for the reader seeking straightforward information about social learning theory and who can tolerate limited references to empirical works substantiating the author's claims, this book is valuable.

Although the author states in the preface that the intention is to provide "a concise overview of the recent theoretical and experimental advances in the field of social learning" (p. vii), some readers may find parts of the text repetitive. This reviewer, for one, suggests that the volume could have been shorter and more succinct. As well, this text is essentially an enlarged version of an earlier monograph by the same title (Bandura, 1971). Many of the examples and most of the information are identical in the two documents. Nonetheless, the information contained within this 1977 text is clearly explained in manageable language without the awkward sentence structure that has plagued some of the author's earlier writings. Cohesion occasionally remains a challenge, however, in that some sections just seem to end or subheadings are placed just because it seemed time to do so. Consistent summaries would also enhance the text. A strength of the text is that examples are effectively interspersed to clarify points without being excessive. Criticisms aside, this text is a useful introduction to social learning theory and is most effective as a companion to *Social Learning and Personality Development* by Bandura and Walters (1963) which contains more references to empirical studies that provided the basis for the theory.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44,* 1175-1184.

Key words or phrases: • Reciprocal Causation • Self-Efficacy • Social Learning

This brief article contains an overview of the relevance of cognitive processes to social learning from a reciprocal causation perspective. The impact on self-efficacy and consequent effect on social learning are identified.

The article is theoretical in nature. The information provides the basis upon which a rationale was developed in the present thesis to support the effectiveness of using social learning theory to enhance the social/emotional development and status of students who are hard of hearing. The author's proclivity for overly, and often unnecessarily, complex vocabulary and sentence structure, however, may be somewhat daunting. Therefore, although useful information is contained in this article, naive readers may wish to read some of the earlier writings by Bandura and his associates before tackling this one.

Bandura, A., & Barab, P. G. (1971). Conditions governing nonreinforced imitation. *Developmental Psychology, 5,* 244-255.

Key words or phrases: • Social Learning Theory • Empirical Study

The authors report and discuss the findings of an empirical study in this article. Using child participants, the phenomenon of nonreinforced imitation was investigated. The important role of nonreinforced imitation is based on the premise that "imitative behaviour is undoubtedly self-maintained in the absence of external reinforcement through self-rewarding reactions to one's own skillful reproductions of personally valued activities" (p. 254).

Results support the influential role of discrimination processes in social learning as well as the effectiveness of peer models. Implications for self-efficacy may also be drawn from the findings. As well, suggestions for effective implementation of this element of social learning theory in social skills training may be extrapolated from the results and subsequent discussion.

Bandura, A., & Walters, R. H. (1963). *Social learning and personality development.* New York: Holt, Rinehart and Winston.

Key words or phrases: • Social Learning Theory • Textbook • Literature Review

In this slim, undersized text, the authors explain the basis for their social learning

theory. Although predominantly aimed at the psychotherapeutic intervention of adults displaying deviant behaviour, many examples related to children and some suggestions that may be applied to the classroom are included. This approach may be extended and applied specifically to students in the regular classroom who are hard of hearing.

In five manageable chapters, the authors discuss, mostly from an environmentalist perspective, how models and the social environment alter and influence behaviour. It is asserted that children learn in order to receive reinforcements which they eventually administer to themselves, thus striving toward the goal of self-control–a trade mark of socialization. The following topics are discussed: the socio-behaviouristic approach, which is an explanation and rationale of the authors' social learning theory and how it differs from other theories, including operant conditioning; the role of imitation; reinforcement patterns and social behavior; self-control development; and behaviour modification.

Extensively citing others' research, the authors effectively introduce and discuss alternative approaches for the treatment and explanations of deviant behaviour. These discussions are fair, yet pointed, in that they are evaluated in terms of the social learning theory of the authors. The main behaviours addressed in this volume include: aggression, frustration, morality, sexual deviancy, self-control, and dependency. The concluding chapter is more practical in focus than the others as it includes pragmatic applications of the authors' social learning principles for the fostering of prosocial response patterns, elimination of highly deviant and persistent behaviour, and the establishment of self-control.

Although sentence structure is often awkward, inhibiting smooth reading and comprehension, this text, nonetheless, serves the novice well. It is an introduction to a variety of approaches to personality development and behaviour modification, and to the principles proposed by the authors. The contents of the text would be strengthened, however, with a summative overview at the end. Each chapter effectively and appropriately concludes with a summary of the chapter's topic and a brief introduction to the following section. The final chapter's summary, however, is not as satisfactory as the others', nor are the book's main points highlighted, both of which may leave the reader with a feeling of incompleteness.

A further caution to readers is a reminder of the date of publication of this book. Many of the experimental design examples included in this 1963 review do not necessarily subscribe to the same ethical standards imposed by current practices, thus reflecting the acceptability differences of the period during which the book was

written. The usefulness of the findings are in no way compromised, but more sensitive researchers might be wise to recognize and acknowledge that scientific and societal attitudes change with time.

Berry, V. (1992). Communication priorities and strategies for the mainstreamed child with hearing loss. *The Volta Review, 94*, 29-36.

Key words or phrases: • Communication • Social/Emotional Implications

The author of this useful article effectively combines pragmatic strategies and intervention suggestions with empirical research and theories from current literature. The following issues impacting communication are discussed: physical and environmental factors; factors of the individual student with hearing loss; educator factors; classmate factors; classroom arrangement and environment; teacher and curriculum adaptations; the responsibilities and accountability of the student with hearing loss; as well as adaptations of classmates. Taking the stance that communication is not an isolated skill, the author's rationale identifies the positive impact on social/emotional development when overall communication is effectively facilitated.

Bess, F. H., & Humes, L. E. (1995). *Audiology: The fundamentals* (2nd ed.). Baltimore, Maryland: Williams & Wilkins.

Key words or phrases:
- Audiology
- Hearing Loss Categorization
- Mainstreaming History
- Educational Impact of Hearing Loss

This updated version of the 1990 textbook presents a broad scope of topics related to the field of audiology. Providing a background and history of audiology, it also succinctly includes an overview of issues relating to the audiology profession, the nature of sound, the structure and function of the auditory system. It also addresses auditory assessment and management strategies.

Bibby, M. A. W. (1994). Educating children and young adults who are deaf or hard-of-hearing in Canada: Challenges for the nineties. *JSLPA, 18*, 177-187.

Key words or phrases: • Canadian History • Deaf Education

As an updated and comprehensive addition to the paucity of information on Canadian education of students who are deaf, this article is extremely valuable. It initially identifies contributing factors explaining the Canadian education system for

students who are disabled. It continues into a summary of historical influences and events, progressing to a discussion of the present situation for education of students who are Deaf including a brief synopsis of the effects of inclusive education. Of particular value, not found elsewhere, is the section on northern education, addressing the demographic and geographic situations unique to this vast country. The remainder of the article discusses curriculum issues, infant and pre-school education, post-secondary education, teacher training, and concludes with information about current research with suggestions for future endeavours.

This article is of great value to all teachers-in-training in a Deafness Studies Program. It is somewhat frustrating, however, that the phrase, "Deaf and hard of hearing" seems to be used almost as a hyphenated word, with no specification of the separate needs of the two distinct groups. Correspondingly, there are no definitions clarified of each group.

Blood, G. W., Blood, I. M., & Danhauer, J. L. (1978). Listeners' impressions of normal-hearing and hearing-impaired children. *Journal of Communications Disorders, 11*, 513-518.

Key words or phrases:
- Empirical Study
- Social/Emotional Impact
- Speech Impairments
- Listeners' Attitudes
- Hard of Hearing
- Hearing Aid Effect

This article contains the results of a study that investigated listeners' ratings of hearing-impaired speakers' perceived intelligence, achievement, and personality. Appearance ratings, as related to the presence of a hearing aid, were also analyzed. Conclusions were drawn on the ratings done by 150 undergraduate college students (non-speech majors) of 12 male, Caucasian, school-aged children (4 normal hearing, 4 hard of hearing, and 4 deaf). Stimuli consisted of audio-tape speech recordings, and two full-face, neck and shoulder portrait view photographic slides of each school-aged child (one wearing a hearing aid and one without). Findings suggest that negative social reactions are triggered by the hearing aid and speech of students with hearing loss. Final comments include a need for awareness of negative attitudes towards these students because their speech and hearing aids invoke discrimination in areas of intelligence and achievement.

Bowyer, L. R., & Gillies, J. (1972). The social and emotional adjustment of deaf and partially deaf children. *British Journal of Educational Psychology, 42,* 305-308.

Key words or phrases:
- Empirical Study
- Hard of Hearing
- Scottish
- Social/Emotional

This article contains the report of a study done in Scotland. The researchers hypothesized that the subjects, students in regular classrooms who were hard of hearing, would exhibit social/emotional maladjustment. This was based on logical deliberations, as discussed in the article. The findings, however, did not confirm this. Using projective techniques and teachers' ratings, the results indicate, instead, that with support from specialist teachers and modification of adults' negative attitudes, the participants "were coping with the same tasks as the non-handicapped children with no greater incidence of maladjustment than is found in an unselected school population" (p. 307). The researchers further qualified their results with the observation that students with poorer coping skills tended to be educated in segregated settings, thus possibly skewing the subject pool.

The results of this study are relevant to the topic of the present thesis for two reasons. First, the researchers anticipated that students who are hard of hearing and educated in regular programs would have a higher incidence of social/emotional difficulties. Secondly, although results were to the contrary, several qualifications are presented to perhaps explain the divergence from the hypothesis. Although the research is somewhat dated, terminology is not current, and education and student populations are likely different in today's schools, the recommendations and observations/discussion are still useful.

This researcher questions the rating scales administered to the teachers. The subjective adjectives of "very good", "good", etc. are unclear regarding their terms of reference. For example, were the subjects being compared to hearing students in terms of their social adjustment, or to other hard of hearing students? One might also wonder about the background of the researchers specifically because of their expressed surprise at the social activities capabilities of students who are hard of hearing. The examples of activities given are well within the audiological capabilities of individuals with less than severe hearing loss, particularly with the assistance of hearing aids.

Brackett, D., & Maxon, A. B. (1986). Service delivery alternatives for the mainstreamed hearing-impaired child. *Language, Speech, and Hearing Services in Schools, 17*, 107-114.

Key words or phrases:
- Empirical Study
- Hard of Hearing
- Mainstreaming
- Service Models

This article contains a discussion of the results of a long-term study. Demographic and correlational data were collected on 162 students with hearing loss, educated in regular classrooms. Options are presented for appropriate service delivery of benefit to school boards and school personnel, based on the study's findings and the included case histories of three specific children. The exhaustive, but succinct checklist included as an appendix, summarizes the recommendations. Although not all points will be necessary for every student, it, nonetheless, includes items that may otherwise be overlooked when considering a regular classroom placement for a child with hearing loss. Because of its brevity, no specific assessment tools are included, nor are key personnel identified. Neither omission detracts from its usefulness.

British Columbia Ministry of Education. (1994). *Hard of hearing and deaf students: A resource guide to support classroom teachers.* Victoria, B.C.: Author.

Key words or phrases:
- Regular Classroom Strategies
- Hard of Hearing
- Communication and Social/Emotional Needs

Presented in a straightforward fashion, this guide is a useful source for the regular classroom teacher. The information covers areas dealing with hearing loss and educational implications, equipment needs, as well as suggestions for classroom and communication adaptations. Specific suggestions are also included for conducting interviews with students, parents, and teachers of the deaf. All the sample questions would be excellent for interacting with each and every student, special learner or not, but are critical for the improved interaction with a student who has hearing loss. The authors also provide a succinct rationale for the inclusion of this section.

A particularly noteworthy section in this guide book is the one identifying needs of learners who are hard of hearing or deaf. For one thing, this is one of the extremely rare occasions where "hard of hearing" is listed before "deaf". Of more import to the present thesis, however, is the point that of the 13 items listed in this

section, psychosocial issues are addressed first. In this section, the authors summarize the need first and then provide examples of how to meet the need.

Bunch, G. (1977). Mainstreaming and the hearing impaired child: Decision making. *B.C. Journal of Special Education, 1*, 11-17.

Key words or phrases:
- Critique of Existing Assessment Tools Measuring Potential Mainstreaming Success
- Integration Rating Scale Proposed
- Opinion Paper

This article, although somewhat dated, identifies a lack, at that time, of appropriate assessment instruments for pre-determining how successful a student with hearing loss will be in a mainstream educational setting. Initial comments address the situation in British Columbia for this group of students. Broadening the perspective, the article proceeds to evaluate and critique existing assessment models for decision making which are all cited in the article: the Transitional Instrument (Rudy & Nace, 1973); the Integration Profile of the Lexington School for the Deaf (Blumberg, 1973); and the Mainstream Placement Question/Checklist (Nix, 1977). Based on the critiques of each of the instruments, the article concludes with the presentation of an Integration Rating Scale (IRS), proposed as a guide for areas of specific assessment, although no specific measurement tools are suggested. Ratings are based upon and weighted according to an individual's percentile. For norm-referenced tests, one assumes that comparison is made against normally hearing subjects although it is not specified. Considering that the assessments are to determine potential success in a mainstream setting where students with hearing loss are compared with their hearing peers, this may have been acceptable at the time of the article's publication when an inherent assumption of mainstreaming was the disabled student's ability to achieve academic parity with his/her classmates. Currently, diversity is valued more, so use of norms for students with hearing loss may be more appropriate.

The IRS allows for informal as well as formal assessment. Although discussion in the text of the article identifies the significance of social needs of students with exceptionalities, the IRS focusses on academic achievement, aural/oral communication skills, and intelligence. The weightings for social ability, however, are considerably higher than the other items, and are equal to the weightings for parental support, attitude, and assistance. With the exception of parental involvement, the IRS predicts a student's success in a mainstream setting based on

the student's Rating Scale results, with no consideration given to placement parameters, such as personnel factors or the provision of support services.

Bunch, G. (1994). An interpretation of full inclusion. *American Annals of the Deaf, 139,* 150-152.

Key words or phrases:
- Inclusive Education: Definitions and Aspects
- Opinion Paper
- Implications for Deaf Students

A lengthy and general discussion of what inclusive education is and is not for students with special needs begins this opinion paper. A wide variety of topics are covered, including: general characteristics of an inclusive program; a philosophical discussion of mainstreaming; viewing disability as a social construct; rationale supporting inclusion for many students with exceptionalities, addressing both academic and social needs; the right of educational placement choice for students with special needs and their parents; and community involvement. The latter half of the article interprets the implications of this educational trend for deaf students specifically and shows the relevance of the earlier discussions to this particular group of special learners.

Clark, J. G., & Pieper, E. J. (1978). The hearing impaired child in the mainstream. *Instructor, 87,* 152-154.

Key words or phrases:
- Mainstreaming the Student with Hearing Loss
- General Classroom Teaching Strategies

This concise article, intended for regular classroom teachers presents ten brief points under each of two categories: 1) helping the child with hearing loss cope in a regular classroom; and 2) helping normally hearing students accept and cope with their peer who has hearing loss. Although the strategies for assisting hearing students tend to focus on deafness and soundless situations, the strategies for teaching the student with hearing loss seem to be more appropriate for students with less than severe hearing losses. A clarification of terminology and consistency of strategies with clearer descriptions of the targeted population would enhance this article. As a quick overview and starting point for teachers who may be teaching their first student with hearing loss, this article can be helpful. A lack of references weakens its credibility, however.

Clarke, B. R., & Winzer, M. A. (1983). A concise history of education of the deaf in Canada. *The ACEHI Journal, 9*, 36-51.

Key words or phrases: • Canadian History • Deaf Education

This article summarizes the history of Canadian education of the deaf. It is an extension and update of earlier articles by Winzer (1979, 1980). A brief explanation of Canadian political responsibilities related to education introduces this comprehensive article. Each of the remaining sections include an historical perspective and overview as well as current (1983) information. The bulk of the article discusses early history, 20th century events to the time of the article's publication, educational placement choices, oral schools for the deaf, services for preschoolers and their parents, adult education, and teacher training, and ends with a discussion of the Association of Canadian Educators of the Hearing Impaired (ACEHI). The name of this teachers' association, however, was subsequently changed to the Canadian Association of Educators of the Deaf and Hard of Hearing (CAEDHH) in 1995, reflecting more current terminology. The article's concluding summary provides an explanation for the difficulties encountered in collating the material for the article and for some of the inconsistencies in inservice delivery across this vast country. Nonetheless, this is an extremely valuable resource that should perhaps top the reading list for all incoming training teachers of the Deaf and hard of hearing in Canada.

Cohen, O. P. (1994). An administrator's view of inclusion for deaf children. *American Annals of the Deaf, 139*, 159-161.

Key words or phrases: • Inclusion: History; Aspects • Deaf Education

This article is the fourth contribution to the 1994 edition of the annual reference issue of the *American Annals of the Deaf*. This issue's topic is inclusive education for students who are deaf. From the perspective of a school administrator, this particular article provides seven specific suggestions for a successful inclusive educational experience for students who are deaf. Drawing from other special education disciplines and providing historical information on the inclusion movement, much of the information is transferable to a discussion regarding students who are hard of hearing. The issue of socialization is also briefly addressed. It is impossible to provide in-depth discussions in such a limited space as dictated by the format of this special issue of a journal, so this article is a good beginning point for readers interested in the subject. The author makes

recommendations for further research while providing rationales without too many definitive statements. Providing a framework, the article leaves later interpretations to the reader.

Coleman, P. G., Eggleston, K. K., Collins, J. F., Holloway, B. D., & Reider, S. K. (1975). A severely hearing impaired child in the mainstream. *Teaching Exceptional Children, 8*, 6-9.

Key words or phrases:
- Mainstreaming Definition
- Case Study
- Mainstreaming Components

This article begins with a definition of mainstreaming pertinent to the time during which it was written. The authors, teachers at a school in Vermont, then present a case history, relating their school's experiences and approach to the integration of one 9 year old child with severe hearing loss.

Corson, H. J., & Stuckless, E. R. (1994). Special programs, full inclusion, and choices for students who are deaf. *American Annals of the Deaf, 139*, 148-149.

Key words or phrases:
- Inclusion
- Deaf Students

This brief introductory article to the discussion in the annual reference issue of the *American Annals of the Deaf* summarizes the contents of the articles contained in this edition, also introducing the authors. Although the focus is primarily on students who are deaf, this article succinctly overviews the issue of inclusion.

Danhauer, J. L., Blood, G. W., Blood, I. M., & Gomez, N. (1980). Professional and lay observers' impressions of preschoolers wearing hearing aids. *Journal of Speech and Hearing Disorders, XLV*, 415-422.

Key words or phrases:
- Empirical Study
- Viewers' Attitudes
- Social/Emotional Impact
- Hearing Aid Effect

The results of a study are reported in this article. This study builds upon earlier work by Blood et al. (1977, 1978), the findings of which indicate that the perceived intelligence, achievement, personality, and appearance of adolescents are rated more negatively when they wore hearing aids. The 1980 study intended to determine the impressions of preschoolers wearing hearing aids by lay and professional observers, regarding perceived intelligence and appearance, and whether or not the size of the aid influenced ratings. To control the variables, the photographic slides

and audio voice recordings used as stimuli were of only male 4-6 year olds, with normal hearing and speech.

Results indicate that although appearance was not discriminated against by either group of observers regardless of the presence of a hearing aid, both groups rated achievement lower in the presence of an aid. A bias was also shown against the size of the aid by the lay observers, while the professionals' bias was indicated whenever an aid was shown, regardless of its size. The researchers therefore conclude that, regardless of speech and voice quality, preschoolers wearing hearing aids may be exposed to negative stereotypical attitudes and social reactions. As a consequence of these and others' findings, a reported observation and recommendation is that the general population still needs more exposure to and sensitivity awareness training of the needs of hearing aid wearers.

Davis, J. M., Elfenbein, J., Schum, R., & Bundler, R. A. (1986). Effects of mild and moderate hearing impairments on language, educational and psychosocial behavior of children. ***Journal of Speech and Hearing Disorders, 51,*** **53-62.**

Key words or phrases:
- Empirical Study
- Hard of Hearing
- Social/Emotional Impact

The results of an extensive study of 40 hard of hearing school-aged students are reported in this lengthy article. Data were collected from the results of standardized assessments and interviews with the hard of hearing subjects themselves, as well as their parents, educators, and peers.

Results indicate that prediction of mainstream success cannot be based on degree of hearing loss when the subjects' responses are analyzed individually. However, the findings reveal significant delays in the three areas of verbal skills, academic achievement, and social development when the subjects are considered as a group. Although generalization of results is limited, these students have a higher prevalence of difficulties than their hearing peers. Therefore, a strong conclusion from this study is that students who are hard of hearing form a heterogenous group and that students must be considered individually.

A significant finding relates to social acceptance. Fifty percent of the students with hearing loss, as opposed to 15.5% of their hearing peers, expressed concern about peer acceptance. The researchers suggest that "social problems may constitute a major reflection of the effects of hearing impairment, and society's attitude toward it, on children's development" (p. 61).

Dengerink, J. E., & Porter, J. B. (1984). Children's attitudes towards peers wearing hearing aids. *Language, Speech, and Hearing Services in Schools, 15,* 205-209.

Key words or phrases:
- Empirical Study
- Social/Emotional Impact
- Peers' Attitudes
- Hearing Aid Effect

The results of a study of the attitudes of 10 to 12 year old students with normal hearing towards hearing aid wearers are reported in this article. The subjects rated peers as less attractive when they were wearing an aid, as portrayed in photographic slides. The presence of glasses on the peers being rated did not elicit negative responses, however. The findings support earlier results by Blood et al. (1977, 1978) and Danhauer et al. (1980) that the presence of a hearing aid evokes negative attitudes. Dengerink and Porter suggest that hearing aids are not as socially acceptable as glasses and that in-service training should be provided to both the receiving teacher and peers of the student with hearing loss.

Fisher, C. G., & Brooks, K. (1981). Teachers' stereotypes of children who wear hearing aids. *Language, Speech, and Hearing Services in Schools, 12,* 139-144.

Key words or phrases:
- Empirical Study
- Social/Emotional Impact
- Teachers' Attitudes
- Hearing Aid Effect

The results of a questionnaire given to 104 elementary classroom teachers who had at least one student who wore hearing aids are reported in this article. The teachers were asked to list all words, adjectives, or traits that may be used to describe elementary students who wear hearing aids. After compilation, the traits were classified by 100 University students. Results list the traits according to frequency of mention, desirability, and to educational, emotional, and social implications. Overall categorization indicates that most of the traits are listed as emotional and social, with these two categories receiving the most listings as undesirable. The findings support the existence of stereotypical attitudes among teachers. This is particularly apparent in the fact that undesirable traits outnumbered desirable ones by a ratio of 3.5 to 1. Although qualifications are stated regarding uncontrolled variables, the researchers nonetheless conclude that pre-service and in-service education would enhance the understanding of classroom teachers.

Fitch, J. L. (1982). Orientation to hearing loss for educational personnel. *Language, Speech, and Hearing Services in Schools, 13,* 252-259.

Key words or phrases: • In-Service Model

In this succinct article, the author provides an outline format for providing an orientation in-service to regular classroom teachers who have students with hearing loss. The System One Kit (University of Utah, 1974) is the primary resource material, although the audio recording of *Getting Through* (Zenith 1971) and a filmstrip from the Council of Exceptional Children (1977) on PL 94-142 are also recommended. Suggested topics for an effective in-service include: hearing loss, hearing aids/amplification, diagnostic and placement procedures, classroom management, parents' roles and responsibilities, communication, peer interaction, academic skills, PL 94-142, and time for synthesis and evaluation. The Checklists appended to the article include information on troubleshooting the hearing aid, do's and don'ts for the classroom, and a proposed workshop presentation evaluation form.

The article's intended audience is speech-language pathologists. Nonetheless, there is sufficient information to benefit itinerant teachers of the deaf and hard of hearing and/or consultants who may need a starting point for preparing presentations to school personnel. Although the recommended sources may be considered excellent, the effective in-service provider should also remain alert to the advent of more current sources.

Gagne, J. P., Stelmacovich, P., & Yovetich, W. (1991). Reactions to requests for clarification used by hearing-impaired individuals. *Volta Review,* (April). 129-143.

Key words or phrases: • Empirical Study • Listeners' Attitudes • Social/Emotional Impact

This article contains the reported results of a study that investigated reactions to types of communication repair strategies used and frequency of communication breakdowns. From observations of skits, the subjects' reactions were more favourable when actors with "hearing loss" used specific rather than non-specific repair strategies and when there were fewer communication breakdowns. A reported limitation of the study is that the same actors appeared in every skit which may have invoked emotional responses on a personal level from the subjects. This is discussed in the article with possible rationales regarding the experimental design. A conclusion drawn from the results is that specific requests for

clarification are more effective, thus reducing possible negative attitudinal responses.

Although not specifically discussed in the article, the results have implications for students in regular classrooms who are hard of hearing. The inability of many younger students to effectively repair conversation breakdowns could be a source of negative attitudes on the part of their teachers. Thus, as is suggested in the article, a component of aural rehabilitation should include direct teaching of effective communication repair strategies. As breakdown in communication will occur with students who are hard of hearing, it is an essential skill which their hearing peers often learn incidentally or one for which they would not necessarily have as frequent a need.

Hamelberg, L. L. (1986). Making a mainstreamed placement work: Tips for the regular classroom teacher. *The Pointer, 30,* 8-10.

Key words or phrases:
- Cross Disabilities
- Practical Suggestions
- Social/Emotional Needs
- Opinion Paper

This brief article contains a host of practical tips for the regular classroom teacher of mainstreamed students with disabilities. As well as suggestions for interacting with parents and the special education teacher, the author also identifies the importance of attending to the social/emotional needs of students with disabilities. It is proposed that positive interactions and role modeling between teacher and students engender positive feelings within the students which, in turn, enhance their scholastic performance.

Each section is very short, although with no references, to facilitate busy classroom teachers' opportunities to avail themselves of the information. Although written in somewhat of a "cookbook" or "how-to" fashion, the article is a quick and handy source of ideas to help reduce the anxiety some teachers may feel as the inclusion movement places more students with disabilities in their classrooms.

Hartmann, H. (1990). Hard of hearing pupils in regular schools: Opening address of the international conference, Berlin, December 1-4, 1988. *IFHOH Journal, 1,* 6-10.

Key words or phrases:
- Opinion Paper
- Situation in Germany
- Mainstreaming Issues

In this brief conference address, the author highlights issues of concern,

specifically regarding socialization, when considering mainstream placements for hard of hearing students in general terms. The author then discusses the specific situation in Germany.

Harvey, M. A. (1989). *Psychotherapy with deaf and hard-of-hearing persons: A systemic model.* Hillsdale, NJ: Lawrence Erlbaum.

Key words or phrases: • Textbook • Social/Emotional Intervention • Hard of Hearing

In 12 chapters, this excellent textbook covers a large scope of material. Although the chapters specific to intervention with individuals who are hard of hearing are of particular interest to the topic of the present thesis, the entire book contains useful material.

The author's areas of attention range from explaining the systemic model of psychotherapy to pragmatic intervention techniques, including specific treatment scenarios for clients who are hard of hearing, d/Deaf, or deafened. The latter half of the volume includes chapters specific to family therapy, using an interpreter, communication logistics, intervention in the schools, and hearing children of Deaf parents. It concludes with a discussion of vocational rehabilitation systems.

Amply supported with diagrams and qualitative case studies as well as segments of transcripts of actual therapy sessions, this text can be deceivingly easy to read. Stylistically written in comprehensible prose with sufficient clarification of terms, it is, nonetheless, brimming with valuable information for any reader interested in counselling individuals who are hard of hearing or d/Deaf. A familiarity with psychotherapy techniques and difficulties unique to these populations would assist the reader, although it is not necessarily a requirement.

The contents of this text are relevant to the topic of the present thesis. Although no mention is made of social learning theory, the interactive nature of systems theory has some applicability. The format of the text and the pointed use of examples also provide a model for the application of a theory, such as social learning, to students who are hard of hearing.

Hawkins, L., Harvey, S., & Cohen, J. M. (1994). Parents' position on full inclusion for deaf children. *American Annals of the Deaf, 139*, 165-167.

Key words or phrases: • Inclusion • Deaf Students • Parents' Opinions

This article adds to the discussion of inclusive education for students who are

deaf, the topic of the 1994 edition of the annual reference issue of the *American Annals of the Deaf*. This group of three parents of students who are deaf briefly discusses the rationale behind the inclusion movement and the implications for deaf students. The discussed issues of language, communication, and socialization are applicable to hard of hearing students. A discussion of inclusion, or lack thereof, having social, emotional, and behavioural consequences, leads the article to its conclusion of the need to allow for educational options and decision-making on an individual basis.

Hazel, J. S., Schumaker, J. B., Sherman, J. A., & Sheldon-Wildgen, J. (1981). *ASSET: A social skills program for adolescents*. Champaign, IL: Research Press.

Key words or phrases: • Social Skills Training • Commercial Program

The ASSET is a commercially available program applying social learning principles. In implementing the ASSET, teachers model each of eight social skills. Reasoning is also used to explain the effectiveness and usefulness of the skills. Similar to the skillstreaming programs, role-playing is an important element. Through homework assignments, students have opportunities to rehearse their new behaviour in a variety of settings.

Innes, J. J. (1994). Full inclusion and the deaf student: A deaf consumer's review of the issue. *American Annals of the Deaf, 139,* 152-156.

Key words or phrases: • Inclusion • Deaf Education • Opinion Paper

This article is a part of the topical discussion on inclusion for students who are deaf in the 1994 edition of the annual reference issue of the *American Annals of the Deaf*. This opinion paper discusses several aspects for consideration surrounding the issue of inclusive education. Information is also included on historical aspects of the inclusion movement, including a brief discussion of PL 94-142 and interpretation of least restrictive environment. The discussion of social considerations includes students with other disabilities which is of particular relevance to the present thesis.

Ireland, J. C., Wray, D., & Flexer, C. (1988). Hearing for success in the classroom. *Teaching Exceptional Children, 20,* 15-17.

Key words or phrases: • FM Systems • Opinion Paper

In this brief article directed towards regular classroom teachers, the authors argue for the consistent use of FM Systems in the classroom. Relevant research is used to identify the value assistive listening devices have for enhancing communication and thus reducing the frustration often experienced by students who are hard of hearing. A relationship is implied between communication difficulties and psychosocial issues.

Jeffrey, R. W. (1976). Snake phobia. In J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counseling methods* (pp. 301-312). New York: Holt, Rinehart and Winston.

Key words or phrases: • Social Learning Theory
• Practical Intervention Strategies

The basis of this brief chapter dealing with therapist intervention for reducing fears is Bandura's social learning approach. Although the information is intended primarily for therapists, the author provides specific, practical suggestions that may be adapted for teachers' use in the classroom. Through brief explanations of the elements of social learning and the use of participant modeling, a basis is established for which other disciplines may effectively implement the provided techniques.

Kazdin, A. E. (1976). Developing assertive behavior through covert modeling. In J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counseling methods* (pp. 475-486). New York: Holt, Rinehart and Winston.

Key words or phrases: • Social Learning Theory • Assertiveness
• Intervention Techniques

This concise chapter included in a text of counseling methods is a valuable resource for specifically teaching assertive behaviour using Bandura's social learning approach. Although primarily aimed at therapists, the practical suggestions may be adapted for use by classroom teachers of students who are hard of hearing and in need of social skills training.

Kennedy, P., & Bruininks, R. H. (1974). Social status of hearing impaired children in regular classrooms. *Exceptional Children, 40,* 336-342.

Key words or phrases:
- Empirical Study
- Peer Acceptance
- Hard of Hearing

This article is the report of a study that investigated the degree of social acceptance of hearing peers of students who are hard of hearing and the self-perception of peer status of both groups. Results indicate that both groups were equally perceptive of their own social status, supporting one of the hypotheses. Negating the other hypothesis, however, it was found that, based on the results of the three sociometric scales used, the young hard of hearing subjects appear to have gained a degree of social acceptance inconsistent with findings of others' research. Although the subjects in this sample were socially accepted by their hearing peers, the findings do not identify precise reasons why they would be more accepted than similar subjects in other studies. Suggested reasons include the possibilities that: younger children are more nurturant toward classmates with hearing loss than older students might be; the classroom settings in this study were optimal for enhancing social integration; the hard of hearing subjects themselves possessed socially desirable traits and personal attributes that made them more appealing; and the preschool training received by all of the hard of hearing subjects may have enhanced their social desirability compared to subjects of other studies. Further research is suggested to more clearly identify factors affecting social adjustment and to determine specific behavioural characteristics of students in the regular classroom who are hard of hearing. Despite the findings of their study, the researchers still maintain, in the article's conclusion, a need to develop effective strategies to enhance the successful social integration of students with hearing loss into regular classrooms.

Kirchner, C. J. (1994). Co-enrollment as an inclusion model. *American Annals of the Deaf, 139,* 163-164.

Key words or phrases:
- Inclusion
- Opinion Paper
- Educational Environment Issues
- Service Delivery
- Deaf and Hard of Hearing

This article is included in the discussion of inclusive education of students who are deaf in the 1994 issue of the annual reference edition of the *American Annals of the Deaf.* This article addresses issues of: the environment; communication access; social and intellectual peer interaction; and curriculum. Discussion is based on

teachers' and parents' observations from their involvement in the TRIPOD/BUSD program set up in a California school ten years ago. The acronym is not explained, however. Nevertheless, comments about this model of inclusive education are applicable to a discussion of education of students who are hard of hearing.

Lass, N., Carlin, M., Woodford, C., Campanelli-Humphreys, A., Judy, J., Hushion-Stemple, E., & Boggs, J. (1986). A survey of professionals' knowledge of and exposure to hearing loss. *The Volta Review, 88*, 333-349.

Key words or phrases:
- Empirical Study
- Professionals' Attitudes
- Professionals' Knowledge
- Social/Emotional Impact

The results of a study of professionals' knowledge of and exposure to hearing loss are reported in this article. The sample consisted of 303 professionals, including classroom teachers, special educators, physicians, and rehabilitation counselors. Each participant completed a 23-item questionnaire regarding different aspects of hearing loss, communication skills, and characteristics of individuals with hearing loss. Recommendations for pre-service and in-service training format and content are discussed.

The importance of correct and clear information for teachers is considered critical when examining the results of this study. The findings indicate that the surveyed professionals have deficiencies in their knowledge of and exposure to hearing loss. 62.2% of the classroom teachers surveyed had never had any academic exposure to the topic of hearing. As well, when "the average percentage of correct responses for all four professional groups on all informational questionnaire items is [only] 73.8%" (p. 336), one could make the assumption that incorrect knowledge prevails, possibly leading to negative stereotypical attitudes. This supports the argument for careful attention to content of materials available for people who may be naive in matters relating to hearing loss.

Of particular import to the present thesis, and supporting results of other studies, the subjects in this study indicated that a feeling of isolation is the worst consequence of hearing loss. From a choice of seven responses, this was the most frequently selected by classroom teachers (23.0%), special educators (24.7%), physicians (26.0%), and rehabilitation counselors (48.5%).

Laszlo, C. (1994). Is there a hard-of-hearing identity? *JSLPA , 18,* 248-252.

Key words or phrases:
- Terminology
- Culture
- Social Psychology
- Hard of Hearing
- Opinion Paper

In attempting to answer whether or not a hard of hearing identity exists, this article begins with clarification of terminology. Distinctions are drawn between classification of individuals as hard of hearing and as Deaf. As adults are subjects of this opinion paper, the terms "late-deafened" and "oral deaf" are also clarified.

Focussed on the importance of successful coping and social integration of persons who are hard of hearing, the article continues with a discussion of the part played by the hearing world. The author then moves on to support the importance of self-awareness of individuals who are hard of hearing for enhancing their well-being. The article concludes with a well-balanced argument for the existence of a hard of hearing community.

Lee, C., & Antia, S. (1992). A sociological approach to the social integration of hearing-impaired and normally hearing students. *Volta Review, 95,* 425-434.

Key words or phrases:
- Enhancing Social Integration
- Allport's Sociological Contact Theory

The authors use Allport's contact theory as a basis for improving the social interactions of students with hearing loss and their normally hearing peers. The social difficulties encountered by these students is compared with the segregation and subsequent desegregation experiences of minority students.

This theory was chosen to substantiate previous studies' findings (Antia, 1982, 1985) which indicate that physical proximity is not sufficient for effective social interaction. Manipulation of the environment and consideration of group dynamics is proposed as a means for enhancing social integration. Although contact theory is environmentalistic in principles, the suggestions contained in this article may, nonetheless, be correlated and incorporated into the present thesis' discussion regarding the effectiveness of social learning theory. Creation of opportunities for cooperative interaction, for instance, support the principle of appropriate modeling inherent to social learning theory.

Luckner, J. L. (1991). Mainstreaming hearing-impaired students: Perceptions of regular educators. ***American Speech-Language-Hearing Association, 22.*** **302-307.**

Key words or phrases:
- Empirical Study
- Socialization
- Pre-service and In-service Training
- Teachers' Perceptions
- Specialist's Role

The findings of a recent study of regular classroom teachers' perceptions of students in their classes with hearing loss are reported in this article. The researcher maintains that enhancement of socialization with hearing peers, a goal of mainstreaming, depends a great deal on pre-service and in-service training of school personnel, and support from the specialist teacher. Socializing is reported as not being a concern, however, as "teachers reported that the hearing-impaired students in their classes exhibited low ability to socialize (3.5%), did not socialize well (8.7%), exhibited adequate social skills (25.7%), had good socialization abilities (28.3%), or socialized with a high degree of ability (33.8%)" (p. 304). The findings also indicate that regular classroom teachers feel they are not receiving enough information about teaching students with hearing loss, nor enough support from administration and the specialist teacher for students who are deaf or hard of hearing.

Although the study seemed to investigate different things at once, discussion of the results revolves around the need for more support for the classroom teacher. Suggestions for pre-service training of specialist teachers and further research are provided. The appendixes contain condensed versions of the recommendations from the teachers involved in the study. Appendix A is a list of suggestions for classroom teachers and Appendix B could be used to initiate discussion with administrators and/or specialist teachers.

Martin, F. N., Bernstein, M. E., Daly, J. A., & Cody, J. P. (1988). Classroom teachers' knowledge of hearing disorders and attitudes about mainstreaming hard-of-hearing children. ***Language, Speech, and Hearing Services in Schools, 19,*** **83-95.**

Key words or phrases:
- Empirical Study
- History of Education of Hard of Hearing Students
- Statistics

This article is a report of a study that investigated the attitudes and knowledge of

regular classroom teachers about students who are hard of hearing. The results and discussion of the questionnaire's findings provided some background information and assistance with the rationale for the present thesis.

Drawing upon appropriate research in the field, this article provides a brief history of the education of hard of hearing students as well as some statistical information. Although the questionnaire's subsections were written as rating scales or multiple-choice responses, numerous respondents included detailed comments. These narrative responses were qualitatively incorporated into the discussion and interpretation of the results.

Although intended for academic researchers, the study's findings also have great import for itinerant teachers of students who are hard of hearing as well as for teacher trainers, even though the majority of cited sources are from the 1970s. Despite the fact that at the time of the article's writing, the most recent references were two years old, the information presented is significant. It may prove interesting to see more current results of a similar study repeated to determine what advances have been made in the 10 years since the completion of the study, particularly as increasingly more students with hearing loss are educated in regular classrooms. Crucial observations and recommendations resulting from this study should not be ignored.

McCartney, B. (1984). Education in the mainstream. *Volta Review, 86,* 41-52.

Key words or phrases: Mainstreaming Hearing Impaired:

- History
- Basis
- Realms
- Current status
- Components of Success
- Future

McCartney succinctly traces the history of mainstreaming students with hearing loss, discussing Biblical influences through to the status of mainstreaming practices of the early 1980s. Although far from comprehensive, a variety of issues are addressed. This effective and easily read article is well suited to providing the novice reader with an introductory overview of pertinent issues in mainstream education of these students. The more experienced reader may view it as an insightful and concise launch into a wider review of the literature.

McCauley, R. W., Bruininks, R. H., & Kennedy, P. (1976). Behavioral interactions of hearing impaired children in regular classrooms. *The Journal of Special Education, 10.* 277-284.

Key words or phrases:
- Hard of Hearing
- Communication Behaviours
- Empirical Study

This article reports the results of an exploratory study of social behaviours of students in grades 1- 4. On-site observations were made of 14 students who were functionally hard of hearing and 14 same-sexed normally hearing classmates of those with hearing loss. Results indicate that:

- the students with hearing loss interacted significantly more with the teacher than their hearing peers did;
- the hearing students directed significantly more behaviour towards their peers than did the students with hearing loss;
- the hearing students interacted more with the entire group than did their hard of hearing classmates;
- there was no difference between the two groups regarding negative interactions between peers and teachers;
- the students with hearing loss produced significantly more responding than self-initiated verbalizations toward the teacher;
- there was no difference between the amount of self-initiated and responding verbalizations directed toward peers by the hard of hearing students; and
- both groups engaged in a similar amount of positive interactive behaviour with little negative interactive behaviour.

The results of this empirical study support results of other research also showing that hard of hearing students in regular classrooms have a higher incidence of adult communicative interaction than their hearing classmates and less peer interaction. No direct implications for social/emotional development are drawn in the discussion of this study's findings. Nonetheless, the data reinforce the need for teachers to be aware of opportunities wherein they may enhance the social/emotional development of students who are hard of hearing.

McGinnis, E., Goldstein, A. P., Sprafkin, R., & Gershaw, N. J. (1984). *Skillstreaming the elementary school child: A guide for teaching prosocial skills*. Champaign, IL: Research Press Company.

Key words or phrases:
- Social Learning
- Guidebook
- Disabled and Nondisabled Students
- Regular and Special Education Settings

This manual for teaching prosocial skills to students with and without

disabilities is based on four procedures which follow Bandura's social learning principles: modeling; role playing; performance feedback; and transfer of training. Essentially a "cookbook", the "Structured Learning" methods in this easy-to-read book are fully explained to facilitate implementation. The author, however, effectively combines theory and practicality. With a strong research base providing the rationales for each section, lesson plan outlines, including physical setup and preparation considerations, are provided. As well, all the forms, contracts, and so on, illustrated in this document are available in a separate reproducible companion booklet.

The writer of the present thesis has personally used this program with students who have special needs and those who do not and found it effective and useful. Initially, the elements may need to be taught in a structured format, especially for some students or classes. However, many of the techniques are common sense and with awareness of their theoretical effectiveness may be incorporated automatically into one's teaching style.

Menzel, O. J. (1995). When is the cow's tail a leg? *IFHOH Journal, 2*, 4-8.

Key words or phrases: • Hearing Loss Terminology

This delightful, deceptively light-hearted article with serious undertones regarding terminology, is a copy of the author's presentation at the 18th International Conference on the Education of the Deaf (ICED) which took place in July of 1995. Citing only a couple of specific sources, and written in precise vocabulary, this article cleverly highlights difficulties in enunciating labels. Drawing from examples unrelated to the field of deafness, the reader is presented with an historical guide to perceptions and consequent changes in terms about people with hearing loss.

Moores, D. F. (1987). *Educating the deaf: Psychology, principles, and practices* (3rd ed.). Boston: Houghton Mifflin Company.

Key words or phrases: • Deaf Education • Historical Perspective • Terminology

Intended to provide University students with an overview of education of the deaf, this textbook covers a wide range of information. Relying heavily on academic sources and empirical studies, this book is written in an academic style and is dense with information. Differing from many textbooks, it is not written in "flowery" language with lots of pictures, charts, and tables. Because of the density

of the material, readers are cautioned to allow themselves time to absorb all the information. Although the information is presented predominantly from theoretical and historical perspectives, the latter half of the book would be enhanced with an updated version with more current information.

Particularly useful to components of the present thesis, three of the 14 chapters discuss historical perspectives in depth and detail. Although there are minimal references and cited sources related specifically to students who are hard of hearing, this is a valuable source of background information which can be related to this population. (Early documentation of education of individuals with hearing impairments make little distinction between degrees of hearing loss).

National Information Center on Deafness (NICD). (1991). *Mainstreaming deaf and hard of hearing students: Questions & Answers, research, readings, & resources.* Washington, DC: Gallaudet University.

Key words or phrases:
- Mainstreaming
- Suggested Readings
- Further Resources
- Checklists

This slim monograph is written in a concise, question-and-answer format with lots of white space to facilitate quick reading. It contains useful information on general mainstreaming issues, including brief discussions of some American legal considerations. The contents would be particularly useful to parents considering a mainstream educational placement for their child who has hearing loss. Regular classroom teachers receiving such a student would also benefit. The final sections of further readings and resources are essentially annotated bibliographies of tremendous value to researchers, teachers, and parents involved in any capacity with students who are Deaf or hard of hearing.

As the editors have elected to use the acronym D/HH for "deaf and hard of hearing" throughout the booklet, this represents an example of how the two distinct groups are often combined. The contributors are sensitive to this, however, and do isolate the appropriate group to address unique needs where appropriate to do so. Nonetheless, although the booklet begins with some general comments about mainstreaming in general, the remainder of the information is focussed predominantly on students who are Deaf. This, however, does not detract from its usefulness for those interested in students who are hard of hearing.

Northcott, W. H. (1990). Mainstreaming: Roots and wings. In M. Ross (Ed.). *Hearing-impaired children in the mainstream.* (pp. 1-25) Parkton, MD: York Press.

Key words or phrases:
- Hearing Impaired
- Mainstreaming:
  History; Educational Considerations; Aspects

This introductory chapter to a text with a number of contributors contains an overview of issues related to mainstreaming students with hearing loss. As the historical perspective is pointed, although not necessarily comprehensive, an adequate background to the education of these students is provided. Attention to students who are deaf is implied.

Neither terminology nor the targeted population are clarified beyond a brief comment about the origins of the term "hearing impaired". The author uses this term in its generic connotation and the unique needs of each group, either deaf or hard of hearing, are combined and not recognized.

The philosophical discussion, considering the advantages of mainstreaming, although somewhat one-sided, does raise some critical points. Written in a persuasive style, the contents are intended to provide motivation to implement effective mainstreaming.

The most appropriate audiences to the contents of this chapter would be researchers, University students in Education (regular, special education, and graduate level students training to be teachers of the deaf and hard of hearing), and school board administrators.

Orlansky, J. Z. (1977). *Mainstreaming the hearing impaired child: An educational alternative.* Boston: Teaching Resources Corporation.

Key words or phrases:
- Teaching Strategies
- Terminology
- Hard of Hearing

In this delightful book filled with enlightening cartoon pictures, the author overviews some of the issues of importance to regular classroom teachers responsible for the education of students with hearing loss. Using simple language and large print, the author presents clear, sensible examples of specific teaching strategies in a lighthearted fashion to encourage the mainstream success of these students.

This slim monograph is a refreshing change from some of the heavier academic material written on the subject. To effectively reduce teachers' anxiety about

teaching students with hearing loss, this book is recommended for every staff room.

Oyer, H. J. (1966). *Auditory communication for the hard of hearing.* Englewood Cliffs, NJ: Prentice-Hall.

Key words or phrases: • History • Handicapping Conditions

Although somewhat dated, this book, written from an audiological/medical perspective, is a valuable resource for researchers studying the implications of less than severe hearing loss. The second chapter in particular, containing a discussion of the historical perspective, is somewhat unique from much of the material in the field of hearing loss/deafness, in that its focus is entirely on individuals who are hard of hearing, as opposed to deaf.

The intended audience of this succinct, easy to read book is audiologists and speech pathologists, although it contains material useful for classroom teachers as well. The contents of the book focus on aural rehabilitation, but a second, and equally important, thread is the attention drawn to the handicapping factors of less than severe hearing loss. This would be of interest to all professionals working in the field.

Paul, P. V., & Quigley, S. P. (1990). *Education and deafness.* White Plains, NY: Longman.

Key words or phrases: • Textbook • Hard of Hearing • Academic, Communication, and Social/Emotional Needs

A chapter of this book is exclusively devoted to a discussion of students who are hard of hearing. The section on social development of these students is of particular interest to the topic of this thesis. Although the other chapters' contents focus primarily on deaf students, the authors are very precise in clarifying terminology. They distinguish clearly between students who are hard of hearing and those who are deaf, and recognize that their academic, communication, and social/emotional needs are different. In the brief discussion of social development of hard of hearing students and intervention techniques to improve their social interaction, however, the original research cited (Antia & Kreimeyer, 1987, 1988) used participants who would predominantly be classified as deaf by Paul and Quigley's own definitions. Again, inconsistency of terminology usage in studies and books even as recent as 1990 reinforces the premise that hard of hearing students tend to be forgotten and/or

grouped together with students having more severe hearing loss and who rely on manual communication.

Pichora-Fuller, M. K. (1994). Introduction to the special issue on the psycho-social impact of hearing loss in everyday life. *Journal of Speech-Language Pathology and Audiology, 18*, 209-211.

Key words or phrases: • Terminology • Symposium Overview

The author of this brief introductory article to a special issue of the *Journal of the Canadian Association of Speech-Language Pathologists and Audiologists*, undertakes a number of tasks. She initially provides background information on the symposium held May 5-8, 1994 at the XXI Annual Conference of the *Canadian Anthropology Society* and the *Canadian Association for Medical Anthropology*. This symposium's goal was to "explore how an anthropological framework might facilitate a more coherent view of the handicapping effects of hearing loss" (p. 209). After introducing the participants' interests and disciplines, and the presentations, the author continues with a discussion of the working definitions of impairment, disability, and handicap used for the symposium. Finally, she overviews the shift in current clinical paradigms and the implications of the changes.

Reich, C., Hambleton, D., & Klein Houldin, B. (1977). The integration of hearing impaired children in regular classrooms. *American Annals of the Deaf, 22*, 534-543.

Key words or phrases: Mainstreaming Hard of Hearing Students:
- Service Delivery Models and Definitions
- Rationale • History
- Empirical Study
- Social/Emotional Development

This article discusses the data collected on 195 students with mild or moderate hearing loss in a variety of integrated settings. The researchers collected data from the students themselves, their teachers, and their parents. Results are compiled under the categories of: levels of academic achievement; speech intelligibility; levels of adjustment; the effects of various programs; and criteria for successful integration. The final category discusses integration of students who are severely and profoundly deaf.

Conclusions support other research which also indicate that mainstreaming "is beneficial to the academic and language development of hearing impaired

children,...[but] that personal and social problems may increase" (p. 541). To assess the participants' social adjustment, the Bristol Social Adjustment Guide was used, which indicated that students receiving itinerant support "became somewhat less socially adjusted the longer they had been receiving itinerant help" (p. 539). Disappointingly, however, the results from the North York Self Concept Scale are omitted from this report. Unfortunately, no norms exist for this, so comparison with hearing peers is not possible. What is suggested, however, is that secondary students receiving itinerant support seem to have higher self-concept scores than students in either partially or fully integrated settings.

Although this article is somewhat dated, the background information regarding the mainstreaming movement is useful.

Rittenhouse, R. K. (1987). The attitudes of teachers toward mainstreaming of hearing-impaired high schoolers. *Journal of Rehabilitation of the Deaf, 20*, 11-14.

Key words or phrases:
- Empirical Study
- School's Role in Mainstreaming
- Teachers' Perceptions

The results of an empirical study are reported and discussed in this article. Forty-five high school teachers completed two 10-item questionnaires. The study intended to identify teachers' perceptions of mainstreaming and the strengths and weaknesses of the approach.

Results indicate that the majority of regular classroom teachers have not had any pre-service or in-service training on the topic of hearing loss, although they felt able to deal with a mainstream situation. The teachers also expressed their disappointment with the lack of support and help they received which was indicated, in part, by the lowest ratings being given to administration. Teachers' attitudes towards mainstreaming in general were positive. This is encouraging because many teachers and normally hearing peers often display negative stereotypical attitudes towards students with hearing loss and other disabilities.

A concern regarding this study relates to the generality of the questions. Although the study's purpose was to investigate the attitudes of teachers towards mainstreaming of students with impaired hearing, the majority of the questions do not seem to be pointed toward this particular group of special learners. Furthermore, there are two tables included in the article summarizing the discrete results of the responses. The headings "Regular" and "Hearing Impaired" are not explained, nor is their purpose self-evident. Definition of terms is also not clear.

Recommendations from the results target the role of administration. This report could have been strengthened with the identification and discussion of specific suggestions or strategies. The data, although not generalizable and with some weaknesses, are, nonetheless, valuable reflections of the participants' perceptions.

Rodda, M., & Grove, C. (1987). *Language, cognition and deafness.* Hillsdale, NJ.: Lawrence Erlbaum.

Key words or phrases:
- Textbook
- Implications of Hearing Loss
- Social/Emotional

This exhaustive textbook covers a great deal of information related to the areas of communication, cognition, and hearing loss. Although not specifically targeting less than severe degrees of hearing loss, there is applicable information. Distinctions between d/Deaf and hard of hearing are limited. Of particular relevance to the present thesis, are the discussions of the social/emotional implications of hearing loss.

Essentially an extensive and pointed literature review, this textbook is best suited to the graduate student with a background in any of the areas covered. Because of the focus on language and its development, this text would be useful to courses on language and literacy development of those who are d/Deaf. Its best influence, however, would be in classes of socialpsychology of deafness.

Rogers, J. (1994). The inclusion revolution. *Streamliner Seminar: National Association of Elementary School Principals, 12.*

Key words or phrases:
- Inclusion: Definitions; Implications

Presented predominantly in a question and answer format, this brief article, directed at school administrators, overviews what mainstreaming and inclusion are and what they are not. It includes critical evaluations in response to common queries surrounding the issue of inclusion. As well, the author considers the effects on special and regular education teachers, the student with exceptional needs, and their non-disabled classmates. Implications for all levels of school staff, as well as parents of all students are also discussed.

Ross, M.(Ed.). (1990). *Hearing-impaired children in the mainstream.* Parkton, MD: York Press.

Key words or phrases:
- Northcott (1990)
- Shwartz (1990)
- Mainstreaming Issues: History; Social/Emotional
- Ross (1990b)
- Conway (1990)

This excellent resource is an expansion of the 1989 *New York League for the Hard of Hearing* conference proceedings. Included are contributions from a number of contributors from various settings with differing professional responsibilities within the field of deafness. As the book's title suggests, not much specific reference is made to students who are hard of hearing, but this detracts in no way from its usefulness to professionals in the field.

The 18 chapters cover wide ground, but only a few have particular relevance to the present thesis. Specifically, Northcott (Chapter 1) and Ross (1990b) (Chapter 18) provide extensive information about the historical perspectives of mainstreaming and overviews of relevant issues for consideration. The chapter by Conway contains specific practical classroom management suggestions covering many implications of teaching students with hearing loss. Also of note, although it was not used in the present thesis, Chapter 10 contains a discussion of mainstreaming in Canada. Shwartz' chapter on the psycho-social aspects of mainstreaming and Northcott's chapter on mainstreaming are annotated separately.

Ross, M. (1990a). Definitions and descriptions. In J. Davis (Ed.), *Our forgotten children: Hard-of-hearing pupils in the schools.* (2nd ed.). (pp. 3-18). Washington, D. C.: Self Help for Hard of Hearing People.

Key words or phrases:
- Secondary Effects of Hearing Loss

This opening chapter to Davis' book provides a succinct overview of the difficulties experienced by many students in regular classrooms who are hard of hearing. After clearly defining terminology, Ross discusses the performance of hard of hearing students in terms of their speech perception and production, vocabulary, syntax, academic achievement, and psychosocial development. The chapter concludes with a brief discussion of the role of hearing.

For parents and professionals, this chapter is an excellent synopsis of issues relevant to students with less than severe hearing loss. Written in clear, direct, and sometimes provocative language, the author draws extensively from relevant and current research to support his views.

Ross, M., Brackett, D., & Maxon, A. (1982). *Hard of hearing children in regular schools.* Englewood Cliffs, NJ: Prentice-Hall.

Key words or phrases: • Hard of Hearing • Educational Implications

This comprehensive text is organized into four main sections: i) hard of hearing children in regular schools, which overviews terminology, early detection, management, and intervention strategies; ii) performance of the hard of hearing student in terms of speech, language, academics, and psycho-social implications; iii) evaluation and management, with discussions in the areas of audiological concerns, amplification, communication, academic achievement, psychological testing, classroom observations, a parental interview, and IEP development; and iv) remediation, which addresses audiological management, speech and language management, and classroom management. The final chapter concludes with a brief discussion about the educational audiologist.

As a secondary source of pointed information regarding the education of students who are hard of hearing, this is a valuable resource. It complements, and in some cases overlaps, other books written before and since its publication by the authors both singly and jointly. Considering the publication date, it is heartening that social/emotional needs of these students are identified.

Ross, M., & Nober L. W. (Eds.). (1981). *Educating hard of hearing children.* Washington, DC: AG Bell.

Key words or phrases: • Hard of Hearing • Educational Implications

This slim, undersized text contains contributions from eight different writers, including the editors. Attending strictly to the education of students who are hard of hearing, this compilation of opinions is a valuable source of pointed information, discussing the subjects: audiological considerations; assessment; psychosocial implications and evaluation; a parent's viewpoint; teachers' information needs; and IEP development. The first editor introduces and concludes the book with concise overview comments, highlighting salient elements of the volume's contents.

Rotter, J. B. (1982). *The development and applications of social learning theory: Selected papers.* New York, NY: Praeger.

Key words or phrases: • Social Learning Theory • Background Information • Bandura

This book, a compilation of selected papers by the author, contains discussions

of social learning theory. The author's introduction traces the history and development of the theory from its roots through discussion of previous theories and current practices. The papers in the remainder of the volume are presented in chronological order, thus leading the reader through the evolution of social learning theory. The final chapter is a consolidation of the book's contents and a summary of the current (1982) status of the theory and its applications along with insight for future developments.

In comparing and contrasting past and current theories, the author appropriately and effectively combines references to empirical research with practical applications. Because of its academic nature, and written in a relatively easy to read style for the most part, this text would be appreciated most by graduate level University students interested in personality theories.

Sass-Lehrer, M. (1986). Competencies critical to teachers of hearing-impaired students in two settings: Supervisors' views. *American Annals of the Deaf, 131,* 9-12.

Key words or phrases: • Teacher Competencies • Social/Emotional • Empirical Study

Sass-Lehrer reports the results of a study in this article. The researcher had instructional supervisors rate competencies they consider critical to effective teaching of elementary students with hearing loss. Of the 40 competency statements completed, 10 competencies were identified and considered by the 150 participants to be the most critical for effective teaching of this group of students. Seven of the statements relate to instruction and instructional planning skills and three reflect interpersonal skills. A remaining competency describes the ability to work with, educate, and guide others. Each statement was evaluated on a 7-point bipolar scale ranging from most to least critical. A mean of 4.0 was determined to be the "critical threshold" indicating that a score above this would occur 99% of the time by the participants. The fourth most frequently chosen competency was the "ability to guide students in the development of a positive self-concept", with a mean of 5.37. The most critical competency had a mean score of 6.42. These results support the theory that enhancing the social/emotional development and status of students with hearing loss is worthwhile.

Schattman, R., & Benay, J. (1992). Inclusive practices transform special education in the 1990s. *The School Administrator, February,* 8-12.

Key words or phrases:
- History of Special Education Reform
- Specific American School District Example
- School Characteristics
- Definitions

Laying the foundation for special education reform, this article provides a concise review of the history of mainstreaming, beginning with desegregation of Blacks and Whites in the 1950s. A brief synopsis of PL 94-142 is included. Using a school district in Vermont as an example of inclusive education in practice, the authors identify salient features of the approach, emphasizing the importance of teamwork. The article concludes with a summary of the benefits of inclusive education.

Schloss, P. J. (1984). *Social development of handicapped children and adolescents.* Rockville, Maryland: Aspen.

Key words or phrases:
- Hard of Hearing
- Social Learning Theories (Bandura's and Rotter's)
- Social/Emotional Needs

In this textbook, the author addresses the social development of students with disabilities from a social learning theory perspective. The theories of both Rotter and Bandura form the framework. The structure of the book is based on the principles and tactics of social learning, incorporating specific examples of how these may be applied to special learners.

Effective use of tables, figures, charts, and lists enhances the readability and usefulness of this text. The focus on "handicaps" is, however, a bit overdone.

Although the author does discuss specific needs related to students who are deaf or hard of hearing, they are encompassed under the term "auditory handicaps". No attention is given to differences between handicap, impairment, and disability as the terms seem to be used interchangeably. Although a very useful text for readers interested in social development and/or students with disabilities, the text would also have been strengthened with more recent reference citations.

Schwartz, S. (1990). Psycho-social aspects of mainstreaming. In M. Ross (Ed.), *Hearing impaired children in the mainstream.* (pp. 158-179). Parkton, MD: York Press.

Key words or phrases:
- General Mainstreaming Considerations
- Further Resources
- Pragmatic Suggestions

This chapter is a comprehensive addition to an excellent text. Although predominantly addressing the needs of students who are Deaf, the suggestions given are generalizable to students who are hard of hearing, or who have other disabilities. Included are summaries of informal surveys sent to students with hearing loss, specialist teachers of the Deaf and hard of hearing, and to regular classroom teachers of such students. The results provide valuable information on meeting the educational, communication, and social needs of students with hearing loss.

Of particular assistance to professionals working with these students as well as parents, is the chapter's concluding section, a brief annotated bibliography of additional resources. The resources are categorized as: For Teachers; For Nonhandicapped Children; and Children's Books about Handicaps. The items mostly relate to cross disabilities and mainstreaming in general, although the children's books are predominantly about deafness.

Smith, T. E. C., Polloway, E. A., Patton, J. R., & Dowdy, C. A. (1995). *Teaching children with special needs in inclusive settings.* Needham Heights, MA: Allyn and Bacon.

Key words or phrases:
- Inclusive Education
- Hearing Loss
- Socialization Strategies

In 15 chapters, this textbook extensively discusses the current trend of inclusive education of students with special needs. Filled with succinct and appropriate figures and point-form boxes, readers can quickly locate and grasp information. Of relevance to the present thesis, this textbook provides ample background, rationale, and further references relating to the inclusive movement. Discussions of the educational issues for students with exceptionalities are framed within the expectation of meeting their needs within the regular classroom. The unique needs are addressed of: students who have learning disabilities; those who are gifted and talented; as well as students with mental retardation, emotional and behavioural disorders, sensory impairments, physical disabilities or health conditions, and

communication disorders. Separate chapters address classroom organization and management, curricular and instructional accommodations, and working with families.

In the section related to students with hearing loss, the authors go beyond most general textbooks by adding discussion about social/emotional/behavioural characteristics of these students. Although the focus tends to be more on deaf students, there are enough appropriate references to students who are hard of hearing to consider this textbook a useful and reliable resource.

Special Educational Services. (1986). *Counselling for hearing impaired students.* Edmonton, AB: Government of Alberta.

Key words or phrases:
- Hard of Hearing
- Terminology
- Social/Emotional Needs

By virtue of its title and as specified in the Foreword, this slim document is intended to address the needs of students who are deaf or hard of hearing. In eight sections, including a glossary of terms, the author discusses: the needs of these students; misconceptions; culture considerations; communication needs; assessment and diagnosis; counselling strategies; as well as roles and functions of counsellors.

Not intended as a definitive resource for professionals working with these students, this brief document contains very basic information. Unfortunately, it also contains erroneous and potentially misleading information. For example, in the discussion of Hard-of-Hearing culture, which does not actually exist, it is stated that these individuals "have a culture and language distinctly their own" (p. 10). Furthermore, it is suggested that exposure to the hard-of-hearing community can be facilitated through contact with such agencies as the Alberta School for the Deaf. Also, information is given regarding the communication/sign language/interpreter considerations for these students, but assistive listening technology is never mentioned. Thus, although purporting to also address the needs of hard of hearing students, the focus of this guide is almost totally on meeting the needs of students who are Deaf.

Stewart, D. A. (1984). Mainstreaming deaf children: A different perspective. *ACEHI Journal, 10*, 91-103.

Key words or phrases:
- Opinion Paper
- Terminology
- Mainstreaming: History; Rationale; Definitions; Models

Although the principle focusses of this paper are students who are Deaf and the cultural minority perspective of mainstreaming such students, valuable information pertinent to the present thesis is presented. Specifically, the article outlines historical considerations, societal attitude shifts, and North American events impacting the education of students with hearing loss, but who do not fit the criteria of membership within the Deaf Community. From a review of the literature, the author clarifies terminology related to hearing loss and provides a rationale for mainstreaming, as well as some expectations for students with hearing loss and their schools.

Stinson, M. S., & Lang, H. G. (1994). Full inclusion: A path for integration or isolation? *American Annals of the Deaf, 139*, 156-159.

Key words or phrases:
- Inclusion
- Opinion Paper
- Social/Emotional Needs
- Curriculum Considerations

This succinct article is a part of the discussion on the topic of inclusive education for students who are deaf in the 1994 edition of the annual reference issue of the *American Annals of the Deaf*. This opinion paper primarily addresses the social aspects of inclusion with a brief discussion of curriculum considerations.

Tucker, B. P. (1984). Legal aspects of education in the mainstream: The current picture. *Volta Review, 86*, 53-70.

Key words or phrases:
- PL 94-142
- Rehabilitation Act (Section 504)
- US History of Mainstreaming
- Implications for Students Who are Deaf

In this lengthy article, Tucker comprehensively explains PL 94-142 and the 1978 amendment to Section 504 of the 1973 Rehabilitation Act. Identifying relevant portions of each American Act, the author clearly explains their importance to special education and implications for students who are deaf. The focus of the paper is on mainstreaming issues relevant to these students.

Vernon, M., & Andrews, J. F. (1990). *The psychology of deafness: Understanding deaf and hard-of-hearing people.* White Plains, NY: Longman.

Key words or phrases:
- Textbook
- Audiology
- Hard of hearing
- Social/Emotional Considerations

Twelve of the thirteen chapters in this textbook discuss various aspects of individuals who are d/Deaf. The second to last chapter, however, is entitled *Partial Hearing*, and addresses the three areas of: i) audiological considerations; ii) psycho-social factors; and iii) coping mechanisms of people who are hard of hearing. General comments dovetail into specific discussions relevant to the student who is hard of hearing and to persons experiencing late onset hearing loss. Interspersed with brief case examples, the author effectively puts human faces on this disability. It is somewhat surprising, however, that for a book published in 1990, the most recent reference cited in this chapter is 1979. An update is warranted as a wealth of material can be found on these pages.

Warick, R. (1992, December). Education Policy Paper of the Canadian Hard of Hearing Association. *Education issues for hard of hearing and late-deafened persons.* The University of British Columbia: Disability Resource Centre.

Key words or phrases:
- Hard of Hearing
- General Overview

This slim document, sponsored by the *Canadian Hard of Hearing Association*, contains succinct comments on educational issues of relevance to students who are hard of hearing. The author highlights key elements of preschool, school-age, post-secondary, and adult education. With lots of white space and minimal reference citations, it is an easy to read introduction to the field for individuals with limited background in the education of students who are hard of hearing or late-deafened.

Warick, R. (1994). A profile of Canadian hard-of-hearing youth. *JSLPA, 18*, 253-259.

Key words or phrases:
- Empirical Study
- Canadian
- Social/Emotional
- Hard of Hearing Youth

This article is contained within the special edition of the *Journal of Speech-Language Pathology and Audiology* on the psycho-social impact of hearing loss in everyday life. The author reports the results of a survey of 290 Canadian youth,

aged 13 to 25 years old, conducted by the *Canadian Hard of Hearing Association* between the fall of 1993 and the end of 1994.

Of particular interest to the topic of the present thesis are the responses to the questions about social and psychological issues, including the respondents' perceptions of the attitudes of their parents, teachers, and classmates. Personal feelings were also surveyed. One of the most important results from this recent study is the suggestion that hard of hearing youth are at risk for social/emotional difficulties. Initial recommendations are provided to improve the mainstream classroom experience for these students in terms of educational, career, access, social, psychological, and other important issues.

Weber, K. (1994). *Special education in Canadian schools.* Thornhill, ONT: Highland Press.

Key words or phrases: • Canadian Textbook • Special Education

In 14 chapters, this easy-to-read basic textbook introduces the student new to the field of special education to a basic overview of the Canadian classroom and history, drawing parallels with the American situation. Clarifying terminology from a progression perspective, the term "inclusion" is, however, rarely used. Nicely condensing a great deal of background information, the author, nevertheless, does not cite, nor reference, sources. The selective Bibliography and Further Readings section leaves the inquiring reader with many gaps.

Of particular interest to the topic of the present thesis, the chapter "Students Who Are Deaf or Hard of Hearing" is found to be incomplete. Although apparently meant to address both groups of students with hearing loss, only issues related to students who are Deaf are actually discussed, with rare exception. It appears that the author has not clearly discriminated between the needs of the two groups of students and has consolidated implications and strategies without clearly identifying his intention. There is evidence of confusion and contradiction within this chapter, which causes this reader to seriously question the validity of all of the information in the other chapters related to other specific disabilities.

Other contents, however, are of value, such as Appendix A: "Special Education Legislation in Canada's Provinces and Territories", which succinctly summarizes the Canadian special education scene. Appendix B, overviewing assessment tools adequately addresses strengths and weaknesses of a variety of such instruments. Delimiting selections of Assessment Instruments with the words "Some" and

"Popular" would perhaps explain the absence of instruments specific to use with students who are Deaf or hard of hearing.

Weiss, A. L. (1986). Classroom discourse and the hearing-impaired child. *Topics in Language Disorders, 6,* 60-70.

Key words or phrases:
- Hard of Hearing
- Language Considerations
- Empirical Study

This article is a report of research findings of a study of classroom discourse and students who are hard of hearing. Results indicate that although further research is needed on the conversational competencies of these students, there are similarities between the conversational behaviours of students who are learning disabled and those with hearing loss.

Winzer, M. (1979). Historical perspectives on education of the deaf in Canada. *The ACEHI Journal, 6,* 6-10.

Key words or phrases:
- Canadian History
- Deaf Education

This article discusses the historical evolution of education of the deaf in Canada after overviewing the situation in North America. Identifying key people, dates, and locations, this article is written in somewhat of a time-line fashion. Providing a record of early activities, interspersed with anecdotal comments reflecting the attitudes and activities of the time, this article is a valuable resource.

Whorton, G. P. (1966). The hard of hearing child: A challenge to educators. *The Volta Review, 68,* 351-353.

Key words or phrases:
- Opinion Paper
- Service Availability
- Social/Emotional
- Hard of Hearing

In this brief article, the author concisely highlights some issues of concern related to students in the regular classroom who are hard of hearing. This article was written 30 years ago, but could have been written in 1996 as the issues raised are exactly the same topics of current discussion. This point alone makes this commentary a valuable resource.

Even though this article is an opinion paper, it would, nonetheless, have been strengthened with reference citations.

Wright, E. W. (1970). Counseling. In F. S. Berg & S. G. Fletcher (Eds.), *The hard of hearing child: Clinical and educational management.* (pp. 155-173) New York: Grune & Stratton.

Key words or phrases:
- Hard of Hearing
- Counselling Theory
- Social/Emotional Intervention

The counselling approaches discussed in this chapter are considered exclusively for their effectiveness with individuals who are hard of hearing. With a strong focus on the relationship between counsellor/teacher and client/student, many of the suggestions complement a social learning perspective. Although the author consciously avoids techniques on "what to do", the emphasis, of tremendous usefulness, is on "how to be". Besides drawing heavily on results of empirical research to substantiate comments, the noteworthiness of this chapter is the awareness shown of unique problems experienced by individuals who are hard of hearing.

REFERENCES

Alberta Education. (1982). *The hearing impaired student in the regular classroom.* Edmonton, AB: Government of Alberta.

Alberta Education (Special Education Branch). (1995). *Programming for students with special needs: Teaching students who are deaf or hard of hearing*. Edmonton, AB: Government of Alberta.

Alberta Education Response Centre. (1990). *A vision shared: An integration resource for teachers and administrators.* Edmonton, AB: Government of Alberta.

Alberta Education Response Centre. (1991). *Education of deaf and hard of hearing students in Alberta: 1989-1990.* Edmonton, AB: Government of Alberta.

Alberta Education Response Centre. (1992). *Students with challenging needs: Updated facts and figures, 1992.* Edmonton, AB: Government of Alberta.

Allen, T. E. (1992). Subgroup differences in educational placement of deaf and hard of hearing students. *American Annals of the Deaf, 137,* 381-388.

Allen, T. E., & Osborn, T. I. (1984). Academic integration of hearing-impaired students: Demographic, handicapping, and achievement factors. *American Annals of the Deaf, 129,* 100-113.

American Speech-Language-Hearing Association. (1983). Audiology services in the schools position statement. *ASHA, 25,* 53-60.

Anderson, K. L., & Matkin, N. D. (1991). *Handout.* Williams Lake, BC: School District No. 27 (Cariboo-Chilcotin).

Andrews, J., & Lupart, J. (1993). *The inclusive classroom: Educating exceptional children.* Scarborough, ONT: Nelson.

Antia, S. (1982). Social integration of partially mainstreamed hearing-impaired children. *American Annals of the Deaf, 127,* 18-25.

Antia, S. (1985). Social integration of hearing-impaired children: Fact or fiction? *Volta Review, 87*, 279-289.

Antia, S., & Kreimeyer, K. (1987). The effects of social skill training on the peer interaction of preschool hearing-impaired children. *Journal of the Division of Early Childhood, 11*, 206-216.

Antia, S., & Kreimeyer, K. (1988). Maintenance of positive peer interaction in preschool hearing-impaired children. *Volta Review, 90*, 325-337.

Aplin, D. Y. (1987). Social and emotional adjustment of hearing-impaired children in ordinary and special schools. *Educational Research, 29*, 56-64.

Baldwin, S. C. (1994). Full inclusion: Reality versus idealism. *American Annals of the Deaf, 139*, 164-165.

Bandura, A. (1971). *Social learning theory*. New York: General Learning Press.

Bandura, A. (1972). Modeling theory: Some traditions, trends, and disputes. In R. D. Parke (Ed.). *Recent trends in social learning theory*. (pp. 35-61). New York: Academic Press.

Bandura, A. (1975). Analysis of modeling processes. *School Psychology Digest, 4*, 4-10.

Bandura, A. (1976).Effecting change through participant modeling. In. J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counselling methods* (pp. 248-265). New York: Holt, Rinehart and Winston.

Bandura, A. (1977a). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Bandura, A. (1977b). *Social learning theory*. Englewood Cliffs, NJ.: Prentice-Hall.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*, 1175-1184.

Bandura, A., & Barab, P. G. (1971). Conditions governing nonreinforced imitation. *Developmental Psychology, 5*, 244-255.

Bandura, A., & Walters, R. H. (1963). *Social learning and personality development.* New York: Holt, Rinehart and Winston.

Beggs, R. (1983). A biographical history of education of the deaf in Canada. *The ACEHI Journal, 9,* 12-23.

Berg, F. S. (1970a). Educational audiology. In F. S. Berg & S. G. Fletcher (Eds.), *The hard of hearing child: Clinical and educational management.* (pp. 275-318). New York: Grune & Stratton.

Berg, F. S. (1970b). The locus of the education of the hard of hearing child. In F. S. Berg & S. G. Fletcher (Eds.), *The hard of hearing child: Clinical and educational management.* (pp. 13-26). New York: Grune & Stratton.

Berg, F. S. (1986). Characteristics of the target population. In F. S. Berg, J. C. Blair, S. H. Viehweg, & A. Wilson-Vlotman (Eds.), *Educational audiology for the hard of hearing child.* (pp. 1-24). New York: Grune & Stratton.

Berg, F. S. (1987). *Facilitating classroom listening: A handbook for teachers of normal and hard of hearing students.* Boston, MS: College Hill Press.

Bernero, R. J., & Bothwell, H. (1966). *Relationship of hearing impairment to educational needs.* Illinois Department of Public Health & Office of Superintendent of Public Instruction. Peer Review by Members of the Educational Audiology Association, Winter, 1991.

Berry, V. (1992). Communication priorities and strategies for the mainstreamed child with hearing loss. *The Volta Review, 94,* 29-36.

Bess, F. H., & Humes, L. E. (1990). *Audiology: The fundamentals.* Baltimore, Maryland: Williams & Wilkins.

Bess, F. H., & Humes, L. E. (1995). *Audiology: The fundamentals* (2nd ed.). Baltimore, Maryland: Williams & Wilkins.

Bibby, M. A. (1993, December). *Handout.* Edmonton, AB: University of Alberta.

Bibby, M. A. W. (1994). Educating children and young adults who are deaf or hard-of-hearing in Canada: Challenges for the nineties. *JSLPA, 18,* 177-187.

Blood, G. W., Blood, I. M., & Danhauer, J. L. (1977). The hearing-aid effect. *Hearing Instruments, 28,* 12.

Blood, G. W., Blood, I. M., & Danhauer, J. L. (1978). Listeners' impressions of normal-hearing and hearing-impaired children. *Journal of Communications Disorders, 11,* 513-518.

Bogdan, R. C., & Biklen, S. K. (1992). *Qualitative research for education: An introductin to theory and methods.* Needham Heights, MA: Allyn and Bacon.

Bowyer, L. R., & Gillies, J. (1972). The social and emotional adjustment of deaf and partially deaf children. *British Journal of Educational Psychology, 42,* 305-308.

Brackett, D. (1981). Assessment: Adaptations, interpretations, and implications. In M. Ross, & L. W. Nober (Eds.), *Educating hard of hearing children.* (pp. 47-66). Washington, DC: A.G. Bell.

Brackett, D. (1990). Communication management of the mainstreamed hearing impaired student. In M. Ross (Ed.), *Hearing impaired children in the mainstream.* (pp. 119-130). Parkton, MD: York Press.

Brackett, D., & Maxon, A. B. (1986). Service delivery alternatives for the mainstreamed hearing-impaired child. *Language, Speech, and Hearing Services in Schools, 17,* 107-114.

British Columbia Ministry of Education. (1994). *Hard of hearing and deaf students: A resource guide to support classroom teachers.* Victoria, B.C.: Author.

Brooks, N. S. (1981). Hearing impairment: Its nature and needs. In V. J. Froehlinger (Ed.), *Today's hearing impaired child: Into the mainstream of education. A practical guide for teachers, parents, & administrators.* Washington, DC: AG Bell.

Brown, J. D. (1990). The educational environment. In J. Davis (Ed.), *Our forgotten children: Hard-of-hearing pupils in the schools*. (2nd ed.) (pp. 19-38). Washington, DC: Self Help for Hard of Hearing People.

Bunch, G. (1987). *The curriculum and the hearing-impaired student*. Boston: Little, Brown and Co.

Bunch, G. (1977). Mainstreaming and the hearing impaired child: Decision making. *B.C. Journal of Special Education, 1*, 11-17.

Bunch, G. (1994). An interpretation of full inclusion. *American Annals of the Deaf, 139*, 150-152.

Carver, R. (1989). *Deaf illiteracy: A genuine educational puzzle or an instrument of oppression? A critical review*. Edmonton, AB: Western Canadian Centre of Specialization in Deafness, University of Alberta.

Chorost, S. (1988). The hearing-impaired child in the mainstream: A survey of the attitudes of regular classroom teachers. *The Volta Review, 90*, 7-12.

Clark, J. G., & Pieper, E. J. (1978). The hearing impaired child in the mainstream. *Instructor, 87*, 152-154.

Clarke, B. R., & Winzer, M. A. (1983). A concise history of education of the deaf in Canada. *The ACEHI Journal, 9*, 36-51.

Cohen, O. P. (1994). An administrator's view of inclusion for deaf children. *American Annals of the Deaf, 139*, 159-161.

Coleman, P. G., Eggleston, K. K., Collins, J. F., Holloway, B. D., & Reider, S. K. (1975). A severely hearing impaired child in the mainstream. *Teaching Exceptional Children, 8*, 6-9.

Conway, L. C. (1990). Classroom management. In M. Ross (Ed.), *Hearing impaired children in the mainstream* (pp. 131-157). Parkton, MD: York Press.

Corson, H. J., & Stuckless, E. R. (1994). Special programs, full inclusion, and choices for students who are deaf. *American Annals of the Deaf, 139*, 148-149.

Danhauer, J. L., Blood, G. W., Blood, I. M., & Gomez, N. (1980). Professional and lay observers' impressions of preschoolers wearing hearing aids. *Journal of Speech and Hearing Disorders, XLV*, 415-422.

Davis, D. S. (1991). Utilizing amplification devices in the regular classroom. *Hearing Instruments, 42*, 18-23.

Davis, J. (1981). Psychosocial considerations and evaluation. In M. Ross, & L. W. Nober (Eds.), *Educating hard of hearing children.* (pp. 67-76). Washington, DC: AG Bell.

Davis, J. M., Elfenbein, J., Schum, R., & Bundler, R. A. (1986). Effects of mild and moderate hearing impairments on language, educational and psychosocial behavior of children. *Journal of Speech and Hearing Disorders. 51*, 53-62.

DeConde, C. (1984). Hearing impairment in school-age children. In R. H. Hull & K. L. Dilka (Eds.), *The hearing impaired child in school.* (pp. 19-37). Orlando, FL.: Grune & Stratton.

Dengerink, J. E., & Porter, J. B. (1984). Children's attitudes towards peers wearing hearing aids. *Language, Speech, and Hearing Services in Schools, 15*, 205-209.

Fisher, C. G., & Brooks, K. (1981). Teachers' stereotypes of children who wear hearing aids. *Language, Speech, and Hearing Services in Schools, 12*, 139-144.

Fisher, A., Monsen, J., Moore, D. W., & Twiss, D. (1989). Increasing the social integration of hearing-impaired children in a mainstream school setting. *New Zealand Journal of Educational Studies, 24,* 189-205.

Fitch, J. L. (1982). Orientation to hearing loss for educational personnel. *Language, Speech, and Hearing Services in Schools, 13*, 252-259.

Flexer, C., Wray, D., & Ireland, J. (1989). Preferential seating is NOT enough: Issues in classroom management of hearing-impaired students. *Language, Speech, and Hearing Services in Schools, 20,* 11-21.

Fraenkel, J. R., & Wallen, N. E. (1993). *How to design and evaluate research in education* (2nd Edition). New York: McGraw-Hill.

French, D. B., & MacDonnell, B. M. (1985). A survey of questions posed by regular classroom teachers integrating hearing impaired students in Nova Scotia and New Brunswick. *ACEHI Journal, 11,* 12-23.

Froehlinger, V. J. (1981a) The law and its implications. In V. J. Froehlinger (Ed.), *Today's hearing impaired child: Into the mainstream of education. A practical guide for teachers, parents, & administrators.* (pp. 20-39). Washington, DC: AG Bell.

Froehlinger, V. J. (1981b). Why mainstreaming? In V. J. Froehlinger (Ed.), *Today's hearing impaired child: Into the mainstream of education. A practical guide for teachers, parents, & administrators* (pp. 40-48). Washington, DC: AG Bell.

Froehlinger, V. J., & Bryant, R. W. (1981). Assessment and the IEP. In V. J. Froehlinger (Ed.), *Today's hearing impaired child: Into the mainstream of education. A practical guide for teachers, parents, & administrators.* (pp. 51-76). Washington, DC: AG Bell. .

Gagne, J. P., Stelmacovich, P., & Yovetich, W. (1991). Reactions to requests for clarification used by hearing-impaired individuals. *Volta Review*, (April), 129-143.

Garrettson, M. (1977). The residential school. *The Deaf American, 29,* 19-22.

Gearheart, B. R., Weishahn, M. W., & Gearheart, C. J. (1992). *The exceptional student in the regular classroom* (5th ed.). Don Mills, ONT: Macmillan.

Getty, L., & Hetu, R. (1994). Is there a culture of hard-of-hearing workers? *JSLPA, 18,* 267-270.

Giangreco, C. J., & Giangreco, M. R. (1976). *The education of the hearing impaired* (2nd printing). Springfield, Illinois: Charles C. Thomas.

Giebink, G. S. (1990). Medical issues in hearing impairment: The otitis media spectrum. In J. Davis (Ed.), *Our forgotten children: Hard-of-hearing pupils in the schools* (pp. 49-55). Bethesda, MD: Self Help for Hard of Hearing People.

Giolas, T. (1982). *Hearing-handicapped adults.* Englewood Cliffs, NJ: Prentice-Hall.

Giolas, T., & Wark, D. (1967). Communication problems associated with unilateral hearing loss. *Journal of Speech and Hearing Disorders, 41,* 336-343.

Gniazdowsky, P. A. (1977). *Counselor preferences of the hard of hearing.* Unpublished master's thesis, University of Alberta, Edmonton, AB, Canada.

Goldstein, A, Sprafkin, R., Gershaw, N. J., & Klein, P. (1980). *Skillstreaming the adolescent.* Champaign, IL: Research Press Company.

Green, R. R. (1976). Psycho-social aspects of mainstreaming for the child and family. In G. W. Nix (Ed.), *Mainstream education for hearing impaired children and youth* (pp. 75-85). New York: Grune & Stratton.

Gregory, J., Shanahan, T., & Walberg, H. (1984). Mainstreamed hearing-impaired high school seniors. A re-analysis of a national survey. *American Annals of the Deaf, 129,* 11-16.

Griffing, B. L. (1970). Planning educational programs and services for hard of hearing children. In F. S. Berg & S. G. Fletcher (Eds.), *The hard of hearing child: Clinical and Educational Management* (pp. 233-244). New York: Grune & Stratton.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ, 29,* 75-91.

Guba, E. G. (1990). *The paradigm dialog.* Newbury Park, CA: Sage.

Hamelberg, L. L. (1986). Making a mainstreamed placement work: Tips for the regular classroom teacher. *The Pointer, 30,* 8-10.

Hartmann, H. (1990). Hard of hearing pupils in regular schools: Opening address of the international conference, Berlin, December 1-4, 1988. *IFHOH Journal, 1,* 6-10.

Harvey, M. A. (1989). *Psychotherapy with deaf and hard-of-hearing persons: A systemic model.* Hillsdale, NJ: Lawrence Erlbaum.

Hasenstab, M. S. (1987). *Language learning and otitis media.* Boston, MA: College Hill Press.

Hawkins, L., Harvey, S., & Cohen, J. M. (1994). Parents' position on full inclusion for deaf children. *American Annals of the Deaf, 139,* 165-167.

Hazel, J. S., Schumaker, J. B., Sherman, J. A., & Sheldon-Wildgen, J. (1981). *ASSET: A social skills program for adolescents.* Champaign, IL: Research Press.

Heller, P. J. (1990). Psycho-educational assessment. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. 61-80). Parkton, MD: York Press.

Hughes, P., & Rodda, M. (1995). Teaching strategies for hard-of-hearing mainstreamed students. *The ACEHI Journal, 21* (2/3), 94-108.

Innes, J. J. (1994). Full inclusion and the deaf student: A deaf consumer's review of the issue. *American Annals of the Deaf, 139,* 152-156.

Ireland, J. C., Wray, D., & Flexer, C. (1988). Hearing for success in the classroom. *Teaching Exceptional Children, 20,* 15-17.

Jeffrey, R. W. (1976). Snake phobia. In J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counseling methods* (pp. 301-312). New York: Holt, Rinehart and Winston.

Johnson, D. W., & Johnson, R. T. (1985). Mainstreaming hearing-impaired students: The effect of effort in communicating on cooperation and interpersonal attraction. *Journal of Psychology, 119,* 31-44.

Johnson, E. W. (1973). Let's look at the child, not the audiogram. In W. H. Northcott (Ed.), *The hearing impaired child in a regular classroom. Preschool, elementary, and secondary years. A guide for the classroom teacher and administrator* (pp. 18-23). Washington, DC: A.G. Bell.

Kazdin, A. E. (1976). Developing assertive behavior through covert modeling. In J. D. Krumboltz, & C. E. Thoresen (Eds.), *Counseling methods* (pp. 475-486). New York: Holt, Rinehart and Winston.

Kennedy, P., & Bruininks, R. H. (1974). Social status of hearing impaired children in regular classrooms. *Exceptional Children, 40,* 336-342.

Kirchner, C. J. (1994). Co-enrollment as an inclusion model. *American Annals of the Deaf, 139*, 163-164.

Kolzak, J. (1983). The impact of child language studies on mainstreaming decisions. *The Volta Review, 85*, 129-137.

La Greca, A. M., & Mesibov, G. B. (1979). Social skills intervention with learning disabled children: Selecting skills and implementing training. *Journal of Clinical Child Psychology, 8*, 234-241.

Lass, N., Carlin, M., Woodford, C., Campanelli-Humphreys, A., Judy, J., Hushion-Stemple, E., & Boggs, J. (1986). A survey of professionals' knowledge of and exposure to hearing loss. *The Volta Review, 88*, 333-349.

Laszlo, C. (1994). Is there a hard-of-hearing identity? *JSLPA , 18*, 248-252.

LeBuffe, J. R. (1987). Helping individual students in mainstream classes. *Perspectives for Teachers of the Hearing Impaired, 6*, 8-10.

Lee, C., & Antia, S. (1992). A sociological approach to the social integration of hearing-impaired and normally hearing students. *Volta Review, 95*, 425-434.

Lewis, M. (1973). *Clinical aspects of child development*. Philadelphia: Lea & Febiger.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Luckner, J. L. (1991). Mainstreaming hearing-impaired students: Perceptions of regular educators. *American Speech-Language-Hearing Association, 22*. 302-307.

Luetke-Stahlman, B. (1994). Some thoughts on models of inclusion. *The ACEHI Journal, 20*, 119-121.

Madell, J. R. (1990a). Audiological evaluation. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. 26-39). Parkton, MD: York Press.

Madell, J. R. (1990b). Managing classroom amplification. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. 95-118). Parkton, MD: York Press.

Martin, F. N., Bernstein, M. E., Daly, J. A., & Cody, J. P. (1988). Classroom teachers' knowledge of hearing disorders and attitudes about mainstreaming hard-of-hearing children. *Language, Speech, and Hearing Services in Schools, 19,* 83-95.

Maxon, A. B., & Brackett, D. (1992). *The hearing impaired child: Infancy through high-school years.* Stoneham, MA: Butterworth-Heinemann.

McCartney, B. (1984). Education in the mainstream. *Volta Review, 86,* 41-52.

McCauley, R. W., Bruininks, R. H., & Kennedy, P. (1976). Behavioral interactions of hearing impaired children in regular classrooms. *The Journal of Special Education, 10.* 277-284.

McGinnis, E., Goldstein, A. P., Sprafkin, R., & Gershaw, N. J. (1984). *Skillstreaming the elementary school child: A guide for teaching prosocial skills.* Champaign, IL: Research Press Company.

Menzel, O. J. (1995). When is the cow's tail a leg? *IFHOH Journal, 2,* 4-8.

Moores, D. F. (1987). *Educating the deaf: Psychology, principles, and practices* (3rd ed.). Boston: Houghton Mifflin Company.

Moores, D. F., Cerney, B., & Garcia, M. (1990). School placement and the least restrictive environment. In D. F. Moores & K. Meadow-Orlans. (Eds.), *Educational and developmental aspects of deafness* (pp. 115-136). Washington, DC: Gallaudet University Press.

Mueller, H. G., & Killion, M. C. (1990). An easy method for calculating the articulation index. *The Hearing Journal, 43,* 14-22.

Murphy, A. T., Dickstein, J., & Dripps, E. (1960). Acceptance, rejection and the hearing handicapped. *Volta Review, 62,* 208-211.

National Information Center on Deafness (NICD). (1991). *Mainstreaming deaf and hard of hearing students: Questions & answers, research, readings, & resources.* Washington, DC: Gallaudet University.

Nix, G. W. (1976). Introduction. In G. W. Nix (Ed.), *Mainstream education for hearing impaired children and youth* (pp. 1-8). New York: Grune & Stratton.

Nix, G. W. (1982). Mainstreaming: Illusion or solution? *The ACEHI Journal, 8*, 7-14.

Nober, L. W. (1981). Developing IEP's for hard of hearing children. In M. Ross & L. W. Nober (Eds.), *Educating hard of hearing children* (pp. 88-101). Washington, DC: AG Bell.

Northcott, W. H. (1990). Mainstreaming: Roots and wings. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. 1-25). Parkton, MD: York Press.

Olsen, W. O., Hawkins, D. B., & Van Tassell, D. J. (1987). Representatives of the longterm spectral of speech. *Ear & Hearing, Supplement 8*, 100-108.

O'Neill, J. (1964). *The hard of hearing*. Englewood Cliffs, NJ: Prentice-Hall.

Ontario Ministry of Education. (1989). *Review of Ontario education programs for deaf and hard-of-hearing students*. Author.

Orlansky, J. Z. (1977). *Mainstreaming the hearing impaired child: An educational alternative*. Boston: Teaching Resources Corporation.

Oyer, H. J. (1966). *Auditory communication for the hard of hearing*. Englewood Cliffs, NJ: Prentice-Hall.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Paul, P. V., & Jackson, D. W. (1993). *Toward a psychology of deafness: Theoretical and Empirical Perspectives*. Needham Heights, MA: Allyn and Bacon.

Paul, P. V., & Quigley, S. P. (1990). *Education and deafness*. White Plains, NY: Longman.

Pichora-Fuller, M. K. (1994). Introduction to the special issue on the psycho-social impact of hearing loss in everyday life. *Journal of Speech-Language Pathology and Audiology. 18*, 209-211.

Rees, T. (1992).Students with hearing impairments. In L. G. Cohen (Ed.), *Children with exceptional needs in regular classrooms* (pp. 98-117). Washington, DC: National Education Association.

Reich, C., Hambleton, D., & Klein Houldin, B. (1977). The integration of hearing impaired children in regular classrooms. *American Annals of the Deaf, 22,* 534-543.

Rich, D. (1988). *MegaSkills–How families can help children succeed in school and beyond.* Boston: Houghton Mifflin Co.

Rittenhouse, R. K. (1987). The attitudes of teachers toward mainstreaming of hearing-impaired high schoolers. *Journal of Rehabilitation of the Deaf, 20,* 11-14.

Roberts, C., Pratt, C., & Leach, D. (1991). Classroom and playground interaction of students with and without disabilities. *Exceptional Children, 57,* 212-224.

Robertson, L., & Flexer, C. (1991). Hearing impairment need not mean reading with difficulty. *Ohio Reading Teacher, 25,* 32-38.

Rodda, M., & Cumming, C. (1991, May 27). *Communication, language, and mental health in deaf and hard of hearing populations.* Association for All Speech Impaired Children, 2nd Annual Symposium, 47, Harrogates, England.

Rodda, M., & Grove, C. (1987). *Language, cognition and deafness.* Hillsdale, NJ: Lawrence Erlbaum.

Rogers, J. (1994). The inclusion revolution. *Streamliner Seminar: National Association of Elementary School Principals, 12.*

Rosenthal, R. (1968). Self-fulfilling prophecy. *Psychologist Today, 2,* 44-51.

Ross, M. (1976). Assessment of the hearing impaired prior to mainstreaming. In G. W. Nix (Ed.), *Mainstream education for hearing impaired children and youth* (pp. 101-110). New York: Grune & Stratton.

Ross, M. (1978). Mainstreaming: Some social considerations. *Volta Review, 80,* 21-30.

Ross, M. (1981). Review, overview and other educational considerations. In M. Ross & L. W. Nober (Eds.), *Educating hard of hearing children* (pp. 102-116). Washington, DC: AG Bell.

Ross, M. (1990a). Definitions and descriptions. In J. Davis (Ed.), *Our forgotten children: Hard-of-hearing pupils in the schools* (2nd ed.) (pp. 3-18). Washington, DC: Self Help for Hard of Hearing People.

Ross, M. (1990b). Overview and the long view. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. 315-330). Parkton, MD: York Press.

Ross, M. (1990c). Preface. In M. Ross (Ed.), *Hearing-impaired children in the mainstream* (pp. vii-xii). Parkton, MD: York Press.

Ross, M., Brackett, D., & Maxon, A. (1991). *Assessment and management of mainstreamed hearing-impaired children: Principles and practices*. Austin, TX: Pro-ed.

Ross, M., Brackett, D., & Maxon, A. (1982). *Hard of hearing children in regular schools*. Englewood Cliffs, NJ: Prentice-Hall.

Rotter, J. B. (1980). *Social learning and clinical psychology*. New York: Johnson Reprint Company. (Originally published, 1954).

Rotter, J. B. (1982). *The development and applications of social learning theory: Selected papers*. New York: Praeger.

Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science. 8*, 27-37.

Sass-Lehrer, M. (1986). Competencies critical to teachers of hearing-impaired students in two settings: Supervisors' views. *American Annals of the Deaf, 131*, 9-12.

Sass-Lehrer, M. (1986). Competencies for effective teaching of hearing impaired students. *Exceptional Children, 53*, 230-234.

Schattman, R., & Benay, J. (1992). Inclusive practices transform special education in the 1990s. *The School Administrator, February*, 8-12.

Schirmer, B. R. (1994). *Language and literacy development in children who are deaf.* New York: Macmillan.

Schloss, P. J. (1984). *Social development of handicapped children and adolescents.* Rockville, Maryland: Aspen.

Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perspectives. *Remedial and Special Education, 12,* 18-27.

Schwartz, S. (1990). Psycho-social aspects of mainstreaming. In M. Ross (Ed.), *Hearing impaired children in the mainstream* (pp. 158-179). Parkton, MD: York Press.

Smith, T. E. C., Polloway, E. A., Patton, J. R., & Dowdy, C. A. (1995). *Teaching children with special needs in inclusive settings.* Needham Heights, MA: Allyn and Bacon.

Sontag, E., Smith, J., & Certo, N. (1977). *Educational programming for the severely and profoundly handicapped.* Reston, VA: Council for Exceptional Children.

Special Educational Services. (1986). *Counselling for hearing impaired students.* Edmonton, AB: Government of Alberta.

Stewart, D. A. (1984). Mainstreaming deaf children: A different perspective. *ACEHI Journal, 10,* 91-103.

Stinson, M. S., & Lang, H. G. (1994). Full inclusion: A path for integration or isolation? *American Annals of the Deaf, 139,* 156- 159.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.

Strully, J. L., & Strully, C. F. (1989). Friendships as an educational goal. In S. Stainback, W. Stainback, & M. Forest. (Eds.), *Educating all students in the mainstream of regular education* (pp. 59-68). Baltimore, MA: Paul H. Brooks.

Thomas, J. (1991). *Teachers and hearing impairment: Knowledge and attitudes.* Unpublished master's thesis. University of Alberta, Edmonton, Canada.

Tucker, B. P. (1984). Legal aspects of education in the mainstream: The current picture. *Volta Review, 86,* 53-70.

Vernon, M., & Andrews, J. F. (1990). *The psychology of deafness: Understanding deaf and hard-of-hearing people*. White Plains, N. Y.: Longman.

Warick, R. (1992, December). Education Policy Paper of the Canadian Hard of Hearing Association. *Education issues for hard of hearing and late-deafened persons*. The University of British Columbia: Disability Resource Centre.

Warick, R. (1994). A profile of Canadian hard-of-hearing youth. *JSLPA, 18*, 253-259.

Weber, K. (1994). *Special education in Canadian schools*. Thornhill, ONT: Highland Press.

Weiss, A. L. (1986). Classroom discourse and the hearing-impaired child. *Topics in Language Disorders, 6*, 60-70.

Winzer, M. (1979). Historical perspectives on education of the deaf in Canada: To Nova Scotia belongs the honour. *The ACEHI Journal, 6*, 6-10.

Winzer, M. (1980a). Historical perspectives on education of the deaf in Canada: A new departure to the sturdy pioneers of the West. *The ACEHI Journal, 6*, 34-38.

Winzer, M. (1980b). Historical perspectives on education of the deaf in Canada: One more triumph. *The ACEHI Journal, 6*, 50-53.

Winzer, M. (1980c). Historical perspectives on education of the deaf in Canada: Schools of the West. *The ACEHI Journal, 6*, 79-82.

Winzer, M. (1980d). Historical perspectives on education of the deaf in Canada: Birth of the Ontario Provincial Institution. *The ACEHI Journal, 6*, 82-89.

Whorton, G. P. (1966). The hard of hearing child: A challenge to educators. *The Volta Review, 68*, 351-353.

Wood, J. W., & Carmean, M. (1982). A profile of a successful mainstreaming teacher. *The Pointer, 27*, 21-23.

World Health Organization. (1993). *International classification of impairments, disabilities and handicaps*. Geneva, Switzerland: Author.

Wright, E. W. (1970). Counseling. In F. S. Berg & S. G. Fletcher (Eds.), *The hard of hearing child: Clinical and educational management* (pp. 155-173). New York: Grune & Stratton.

Yater, V. V. (1977). *Mainstreaming of children with a hearing loss: Practical guidelines and implications*. Springfield, Illinois: Charles C. Thomas.

APPENDIX A

THE RELATIONSHIP OF DEGREE OF HEARING LOSS TO SOCIAL/EMOTIONAL IMPACT AND EDUCATIONAL NEEDS

APPENDIX A

The Relationship of Degree of Hearing Loss to Social/Emotional Impact and Educational Needs

Degree of Hearing Loss	Possible Effect on Speech and Language Comprehension	Possible Social/Emotional Impact	Potential Educational Needs and Programs*
NORMAL HEARING 0-15 dB HL	A normally hearing student should have no significant difficulty with faint speech.	No detrimental effects to social/ emotional status should be expected related to hearing acuity.	This student should not require any special educational considerations because of hearing ability.
MINIMAL (Borderline) 16-25 dB HL	There may be some difficulty hearing faint or distant speech. When the teacher is more than 3 feet away or when the classroom is noisy, a student with an unaided 15 dB loss can miscomprehend up to 10% of speech. This has particular import in grades K through 3 where verbal instruction predominates.	Possible lack of awareness of subtle conversational cues may cause the student to be perceived as inappropriate or awkward. Fast-paced peer interactions may be missed, impacting socialization and self concept. Immature behaviour may be displayed. Because of the needed listening effort, these students may tire more easily than their peers.	• May benefit from amplification. • Favourable seating recommended. • May need attention to vocabulary or speech, particularly if there is a history of recurrent otitis media.

Table continues

Degree of Hearing Loss	Possible Effect on Speech and Language Comprehension	Possible Social/Emotional Impact	Potential Educational Needs and Programs*
MILD 25-39 dB HL	Students in this category usually do not require special speech nor any additional hearing assistance, as near-normal hearing should be attainable with amplification. With a 30 dB unaided loss, however, a student can misunderstand 25-40% of speech. Without amplification, a student with a 35-40 dB loss may misunderstand at least 50% of speech, particularly when the sound is distant or the speaker is out of the line of vision. Degree of difficulty in school therefore depends on the noise level, distance from the speech source, and the hearing loss configuration.	Negative attitudes of adults and peers impact self esteem. The behaviour of these students may be perceived as "daydreaming", "inattentive", or as having "selective hearing". There is an increased inability to suppress background noise resulting in a stressful learning/listening environment. Because of the needed listening effort, these students tire more easily than their normally hearing peers.	• Will benefit from a hearing aid and the use of a personal FM. • Favourable seating and lighting needed. • Special education teacher can help with language evaluation and educational follow-up. • Auditory skill building is also needed as well as possible development of vocabulary, articulation or speechreading, and/or special support in reading and self esteem.
MODERATE 40-54 dB HL	Face to face conversational speech at a distance of 3-5 feet can be understood if structure and	Because communication is significantly affected, socialization with normal hearing peers becomes	• Special education teacher can help with language evaluation and educational follow-up.

Table Continues

Degree of Hearing Loss	Possible Effect on Speech and Language Comprehension	Possible Social/Emotional Impact	Potential Educational Needs and Programs*
	vocabulary are controlled. Students with an unamplified 40 dB loss can misunderstand 50% to 75% of the speech signal and 80% to 100% with an unaided 50 dB loss. These students will likely have delayed or defective syntax, limited vocabulary, imperfect speech production and an atonal voice quality.	increasingly difficult. Self esteem is increasingly impacted as teachers and peers with negative attitudes may perceive the student as a less competent learner because of the use of hearing aids and Assistive Listening equipment.	• Amplification is essential. • Attention to oral language development, reading, and written language is needed. • Speechreading and speech therapy are usually needed.
MODERATE TO SEVERE 55-69 dB HL	Even with amplification, these students occasionally have difficulties in face-to-face interactions and experience considerable difficulty in group situations. Students with this degree of prelingual hearing loss will likely have delayed language and syntax, as well as reduced speech intelligibility with atonal voice quality.	Poorer self concept, social immaturity and a sense of rejection often occur as a result of the hearing loss and negative judgments by adults and peers.	• Students with this degree of hearing loss routinely require special assistance with speech, hearing, vocabulary, grammar, pragmatics, reading, writing, and language skills.

Table Continues

Degree of Hearing Loss	Possible Effect on Speech and Language Comprehension	Possible Social/Emotional Impact	Potential Educational Needs and Programs*
SEVERE 70-89 dB HL	Individuals with this amount of hearing loss experience great difficulty in group or noisy situations although amplification may help with face-to-face communication. If the loss is of prelingual onset, oral language may not develop spontaneously or will be severely delayed. Later onset hearing loss may result in speech and voice quality deterioration.	These students may prefer to associate more with others who also have hearing loss, which may further isolate them from the mainstream, although these peer relationships may encourage improved self concept and a sense of identity.	• With such limited hearing acuity, special speech, hearing, language, and educational assistance is usually necessary for these students. • As the loss nears 80-90 dB, Total Communication or sign language approaches may be beneficial.
PROFOUND 90 dB HL and beyond	The primary communication mode is visually based (sign language and/or speechreading) as even amplified speech is usually not understood. If the loss is of prelingual onset, speech and language will not develop spontaneously. Later onset hearing loss may result in rapid speech and voice quality deterioration.	Association with Deaf Culture may be increasingly preferred depending on aural/oral competence, parental and peer attitudes, as well as sign language skills.	• These individuals routinely require special speech, hearing, language, and educational assistance. • The educational program needs specialized supervision and comprehensive support services, including continual appraisal of communication and learning needs.

Table Continues

Degree of Hearing Loss	Possible Effect on Speech and Language Comprehension	Possible Social/Emotional Impact	Potential Educational Needs and Programs*
UNILATERAL One normal hearing ear and one ear with at least a permanent mild hearing loss	Students with unilateral hearing loss may have difficulty hearing faint or distant speech and have particular difficulty localizing sounds. Noisy and/or reverberant environments increase difficulties understanding speech. There will be more difficulty detecting and understanding soft speech from the side of the bad ear, particularly during group discussions.	These students will be more fatigued in the classroom setting because of the increased listening effort required. They may seem to display selective hearing because of discrepancies in speech understanding in quiet versus noisy situations. They may appear inattentive or frustrated and behaviour problems are sometimes present. They may also become confused, annoyed, or embarrassed about missing what is said. Undesirable compensatory reactions may be similar to those characteristic of students with bilateral losses.	• These students are at risk for educational difficulties, therefore warranting educational monitoring with the provision of support services as soon as difficulties arise. • A personal FM and/or CROS hearing aid may be of benefit.

* Inservice is required for all those teaching students with less than normal hearing, but is essential for teachers of students with severe hearing loss, and is recommended for teachers of students with unilateral loss.

NOTE: (1) All students with hearing loss require regular audiological evaluation and rigorous amplification monitoring. All students with hearing loss, especially conductive, require appropriate medical attention as well as educational programming.

(2) Students may also have different degrees of hearing loss at different frequencies which may distort speech reception. For

example, it is possible for an individual to have mild or moderate hearing loss for low-pitched sounds, but severe loss for high-pitched ones. Furthermore, strees, colds, allergies, ear infections, and general health all have the potential to result in day-to-day fluctuations in hearing acuity and must be recognized.

(3) Alberta Education (1995) is an additional valuable resource of sample audiograms with detailed explanations of the implications of various degrees of hearing loss, including considerations for social interaction.

(Alberta Education, 1982, 1995; Anderson & Matkin, 1991; Bernero, & Bothwell, 1966; Bess & Humes, 1995; Bibby, 1993; Giolas & Wark, 1967; Gniazdowsky, 1977; Goodman as cited by Weber, 1994; Hasenstab, 1987; Hedge, 1991 as cited in Smith et al. 1995; Madell, 1990a; Moores, 1987; Mueller, & Killion, 1990; Olsen, Hawkins, & Van Tassell, 1987; Paul & Jackson, 1993; Ross, 1990b).

APPENDIX B

HISTORY OF EDUCATION
OF STUDENTS WITH HEARING LOSS

APPENDIX B

History of Education of Students with Hearing Loss

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
Early History:	Exclusion		
2500 B.C.		• beginnings of formal education in Mesopotamia and Egypt • theological and judicial interests in persons with hearing loss	
350 B.C.		• persons with hearing loss suffered "benign neglect" (Moores, 1987, p. 37)	• Classical Period • Aristotle: ear is the "organ of instruction" (Moores, 1987, p. 33)
A. D. 476		• rights were denied to illiterate people who were deaf and mute from birth	• Middle Ages began
6th Century A. D.		• very humane society, but no education was available for persons with hearing loss	• Emperor Justinian of Rome developed the Justinian Code which included five categories of deafness. This code enunciated legal and religious rights according to the cause and extent of the hearing loss, and focussed on the ability to speak. • Quintus Pedius (coheir to Julius Caesar) was deaf and

Table Continues

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
			among the most eminent Roman painters.
10th Century		• public instruction was available to anyone • education was highly oral	• Rhazes (850-920), a leading Arab physician, presented three categories of deafness: 1) impairment; 2) curtailment; and 3) complete loss.
16th Century		• considered the "end of the dark ages" for individuals with hearing loss (Moores, 1987, p. 39).	• Spanish monk, Ponce de Leon, was the first teacher of the deaf.
17th Century			• Bonet wrote the first book on teaching the deaf in 1620 • The British philosopher, John Locke (1632-1708), introduced the concept of *tabula rasa*, which helped to shift societal attitudes towards individuals with disabilities. • George Dalgarno wrote about teaching the deaf in 1680. He believed that with proper education persons with hearing loss could function as well as hearing people as they had the same learning potential.

Table Continues

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
			• Henry Baker started the first school for the deaf in Great Britain
18th Century		• the oral "German Method", originated by Heinicke (1729-1784) was most used.	• Thomas Braidwood was the most influential early British educator of persons with hearing loss. • Pereire (1715-1790) of France was the first well-known teacher of students with hearing loss. • de l'Epee (1712-1789) started the "world's first public school for [students with hearing loss] in Paris in 1755" (Moores, 1987, p. 48). • Johann Konrad Amman (1669-1724), of Holland believed that spoken language was the most important human characteristic and that articulation must therefore be the primary focus of education of students with impaired hearing.

Table Continues

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
19th Century	Institutionalization		• Graser (1766-1841) first introduced mainstreaming, but it was abandoned in 1821 because of poor academic progress. • Itard, a French physician, introduced aural rehabilitation in response to his belief that many of his deaf students had sufficient residual hearing for sound recognition and word comprehension. • In 1831 in Champlain, Quebec, Ronald McDonald opened the first school for the deaf which was Canada's first formal special education project of any kind. • The tuning fork was developed to test refinement in steel-making. Helmholtz used the tuning fork as a hearing test to develop a theory in 1863 that distinguished, for the first time, between people who were hard of hearing and those who were deaf.

Table Continues

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
			• The "Conference of Milan in 1880 proclaimed the superiority of the oral method" (Moores, 1987, p. 53), which was not challenged until after the middle of the 20th century.
1900-1950	Segregation	• custodial care	• 1920s introduction of electro-acoustic hearing aid (Audiophone)–not portable • by 1938: portable "Audiophones" worn by many deaf children • end of World War II: 1) introduction of transistors lead to improved hearing aid technology; 2) interest in aural rehabilitation of veterans who became hard of hearing during military service
1950s and 1960s	Categorization	• testing and labelling emphasis towards all students with special needs • self-contained classrooms	• decline of eugenics movement • 1954 American Supreme Court ruling abolished segregation of Black students • Reynolds introduced the "continuum of placements"

Table Continues

Time Period	Key Descriptor	Predominant Educational Trend and Attitudes Towards Persons with Disabilities	Key Events and/or Individuals
1970s	Integration	• Social integration and universal education • least restrictive environment	• 1975 passing of the US *Education for All Handicapped Children Act* • abandonment of medical model
1980s	Mainstreaming	• attempt at meeting physical, social, and educational needs of disabled students in the regular classroom	• passing of Canadian *Charter of Rights and Freedoms* in 1982. • a recognition of the importance of social ability and the need to teach social skills
1990s	Inclusion	• merger of special and regular education to meet the needs of disabled students in their home school	• improved computer technology applications enhance hearing aid capabilities • cochlear implant evolution • revision of 1975 American Act to *Individuals with Disabilities Education Act* (IDEA)–PL 94-142 in 1990

Note. Adapted from: Allen, 1992; Andrews & Lupart, 1993; Berg, 1970a; Brown, 1990; Bess & Humes, 1995; Brackett & Maxon, 1986; Bunch, 1987, 1994; Coleman et al., 1975; Giangreco & Giangreco, 1970; Martin et al., 1988; McCartney, 1984; Moores, 1987; Moores et al., 1990; NICD, 1991; Nix, 1982; Oyer, 1966; Reich et al., 1977; Rogers, 1994; Ross, 1990c; Schattman & Benay, 1993; Smith et al., 1995; Special Educational Services, 1986; Stewart, 1984; Weber, 1994).

APPENDIX C

SUMMARY OF THE PRINCIPLES OF THE SOCIAL LEARNING THEORY DEVELOPED BY BANDURA AND HIS ASSOCIATES

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SUMMARY OF THE PRINCIPLES OF THE SOCIAL LEARNING THEORY DEVELOPED BY BANDURA AND HIS ASSOCIATES

As noted in Chapter V, the social learning theory developed by Bandura and his colleagues considers the reciprocal interactions of individuals and their environment for developing self-control and enhancing self-efficacy. Addressing this, the key elements of this theory include: i) modeling issues; ii) observer characteristics; and iii) reinforcement considerations. Bandura (1972) summarizes the essence of social learning theory in the statement:

> Observational learning is primarily concerned with processes whereby observers organize response elements into new patterns of behavior at a symbolic level on the basis of information conveyed by modeling stimuli (p. 39).

SLT principles are intended to develop prosocial behaviour and to modify deviant behaviour toward greater conformity. Briefly summarizing the use of SLT for these purposes, Bandura and Walters (1963) state that, with the use of appropriate models, "direct training through reward, aversive stimulation, and other disciplinary procedures" shapes and maintains social behavior patterns (p. 108). Self-reinforcing control, a component of cognitive capabilities, also contributes to behaviour production (Bandura, 1972, 1989). This is an element from which the reciprocity feature of SLT is derived. Following are discussions of the key elements.

Modeling Issues

Imitation of symbolic, real, and exemplary models plays a significant role in this theory, as justified by the statement: "models are utilized in all cultures to promote the acquisition of socially sanctioned behavior patterns" (Bandura & Walters, 1963, p. 47).

Bandura and his associates thus believe that social agents are sources of behaviour patterns.

The theory of imitation is included in this version of SLT because modeling accounts for the emergence of novel responses that may or may not occur in the presence of the model. This addition was in response to a perceived weakness in prevailing SLTs wherein modeling influences were believed to produce only mimicry and not generative nor innovative behavior (Bandura, 1972). Several studies by Bandura and others have substantiated the important effects resulting from exposure to models, either directly, vicariously, or symbolically.

Differences Between Operant Conditioning and Observational Learning

Distinctions between operant conditioning principles and those of social learning are clarified in the literature. Most specifically, Bandura (1972) indicates that although operant conditioning and social learning approaches have "similar assumptions about the factors regulating preexisting matching responses,...they differ markedly on the conditions governing the acquisition of response patterns through observation" (p. 38). Clarifying this divergence in the two approaches and supporting the social learning approach, it is reported that the observation of models may have three effects: i) a *modeling* or *observational learning effect* wherein observers display novel responses that were not previously in their repertoire; ii) *inhibitory* or *disinhibitory effects* which strengthen or weaken inhibitory responses already in the individual's repertoire; and iii) *eliciting* or *response facilitation effects* whereby previously learned matched responses are elicited because the model acts as a type of "releaser" (Bandura, 1972, 1975, 1977b; Bandura & Walters, 1963). However, "social learning theory distinguishes between acquisition and performance because people do not enact everything they learn" (Bandura, 1977b, p. 28).

Components of Modeling

In analyzing SLT, there are three major components of the modeling phenomena leading to the goal of covert self-control for the overt production of prosocial behaviours relating to the characteristics of the observer: i) *attentional or discriminatory processes*;

ii) *retention processes*; and iii) *motor reproduction processes* (Bandura, 1972). There are also a number of factors influencing the effectiveness of models: i) the *model's characteristics*; ii) *characteristics of the observer*, including their cognitive and motoric capabilities; and iii) the *type and timing of reinforcers*.

Cognitive Processes

An individual observing a model's behaviour without simultaneously performing the responses acquires the responses only in representational or symbolic forms (Bandura, 1972). Therefore, two main cognitive processes, i) *attentional* or *discriminatory* and ii) *retention*, play essential roles in effective acquisition of matching responses. Motor reproduction processes also determine the extent to which some behavioural performances may be imitated. Cognitive functioning, however, is an essential element in the reciprocity of SLT. Bandura (1972) asserts "that observational learning is better understood in terms of information processing than in terms of overt enactment of responses" (p. 44). Furthermore, learning may occur from: i) *physical demonstration*; ii) *pictorial representation;* or iii) *verbal description* (Bandura, 1977b).

Attentional Processes: The Role of Discrimination. The need to be highly selective in behaviour reproduction and model observation has been alluded to earlier and is explained further here. Bandura (1975), for instance, indicates that "discriminative observation is...one of the requisite conditions for observational learning" (p. 7). To effectively acquire matching responses it is essential that the observer attend to, recognize, accurately perceive, and consequently differentiate the distinctive and significant features of the model's behaviour (Bandura, 1972, 1977b). Results of empirical research, such as reported by Bandura and Barab (1971), substantiate this statement. It is also relevant to note that certain cues may be selected for attention based on: i) *specific preparation*; ii) *learned biases*; or iii) the *features' inherent importance* (Bandura, 1977b).

Effectively utilized attentional processes correspondingly assist retention processes needed for subsequent retrieval and reproduction of observed behaviours. As discussed

elsewhere in this overview of social learning, there are a number of variables that may enhance or inhibit attentional processes, including characteristics of both the observer and the model. As well, the individuals with whom one has regular contact will delimit the types of behavior repeatedly observed and thus learned most thoroughly (Bandura, 1975, 1977b). Selection and construction of the environment necessarily effects one's social interactions (Bandura, 1989). Exposure to a variety of models in different settings and execution of modeled skills in changing circumstances also enhance the effects of social learning (Bandura, 1975, 1989).

Retention Processes. Cognitive or memory retention of the original observed stimulus in some symbolic form is another requisite element for acquiring social behaviour patterns (Bandura, 1972, 1975, 1977b). Cognitive capabilities resulting in retention abilities are age related, however, in that usually "young children learn by association, and older ones by cognitive processing of input information" (Bandura, 1977b, p. 72). Recognizing that children at different ages retain information to different degrees, there are two other variables governing retention processes: i) *rehearsal operations*; and ii) *symbolic coding*. Practise, or covert rehearsal, of the modeled responses has proven to be effective for enhancing retention of acquired matching responses (Bandura, 1972).

Research findings indicate that symbolic coding, either imaginal or verbal, facilitate long-term retention to a greater extent than rehearsal. An observer's ability "to code, to classify, and to reorganize elements into familiar and more easily remembered schemes...[thus guide] subsequent response retrieval and reproduction" (Bandura, 1972, p. 42). Retrieved verbal codes can later provide covert self-directions to perform matching behaviour, i.e., the behaviour is remembered and executed. Nonetheless, it is reported that, in the absence of coding modeled performances, rehearsal alone will not improve retention (Gerts, 1972, as cited by Bandura, 1972). On the other hand, observers who code will significantly improve their later performances when symbolic rehearsal is an added component (Bandura, 1972).

The Role of Anticipation. As individuals continue to be exposed to a variety of models and to experience consequences of their own behaviour, their cognitive abilities allow these experiences to be stored in memory. Consequently, forethought or anticipation of likely results of their behaviour emerges (Bandura 1989; Bandura & Walters, 1963) and thoughts can regulate actions (Bandura, 1977b). Self-control may thus be promoted and antisocial behaviour may correspondingly be inhibited (Bandura & Walters, 1963). The cognitive effects activated are "mediated by three types of self-reactive influences: (a) affective self-evaluation, (b) perceived self-efficacy for goal attainment, and (c) ongoing readjustment of internal standards" (Bandura, 1989, p. 1180).

This interaction underscores the reciprocity of social learning theory: environmental factors act upon individuals, but they may also influence their environment. Hence, the premise that "both people and their environments are reciprocal determinants of each other" (Bandura, 1977b, p. vii). According to social learning theory, people are not simply passive recipients of what their environment offers them. This means that exhibited behaviour is not solely dependent upon the receipt of some type of reinforcement; prosocial behaviour is not enhanced only because of positive feedback; nor is deviant behaviour inhibited only in the presence of a negative reinforcer. People can make choices and can infer beforehand how environmental factors or social elements may react or interact with their behaviour. Anticipation of positive reinforcement of appropriate behaviour or matching responses may consequently enhance and focus observing responses. This represents how observational learning may be indirectly influenced (Bandura, 1972). Anticipation of consequences can also "affect other cognitive activities that partly determine response acquisition and retention" (Bandura, 1972, p. 40). The ability to make mental images and subsequent choices based on those images could, therefore, be a definition of learning. Summarily, Bandura (1989) states that "in this model of reciprocal causation, action, cognitive, affective and other personal factors, and environmental events all operate as interacting determinants" (p. 1175).

Motor Reproduction Processes

The third critical element of effective replication of modeled behaviour deals with motor reproduction processes (Bandura, 1972, 1975, 1977b). This involves the conversion of symbolic representations of modeled behaviour to guide and perform appropriate overt actions (Bandura, 1972, 1977b). Hence, the determination of whether or not some social behaviours have been learned is through their overt expression.

Although modeled behaviours may have been acquired and retained in symbolic form, the observer may, however, have physical limitations preventing their behavioural reproduction (Bandura, 1972; 1977b). For the student who is hard of hearing, an example of this may be evident in speech and/or voice anomalies.

Regardless of actual physical restrictions, perfect re-enactment on first attempt is rare (Bandura, 1977b). Therefore, another contributor to motor reproduction processes is the informative feedback from the performance and additional demonstrative support resulting in self-corrective adjustments (Bandura, 1977b).

Scope of Modeling Influences

There are generally three types of consequences resulting from observation of modeled behaviour: i) *abstract* modeling; ii) *referential* modeling; and iii) *creative* modeling.

In *abstract* modeling, observers watch others perform "various responses embodying a certain rule or principle" (Bandura, 1977b, p. 41). Generated behaviour goes beyond the specifically modeled performance resulting in the observer learning generalizable rules of thought and conduct. Examples of what may be learned include: "judgmental orientations, linguistic styles, conceptual schemes, information-processing strategies, cognitive operations, and standards of conduct" (Bandura, 1977b, p. 42). *Referential* modeling involves the presentation of actual events along with their abstract counterparts (Bandura, 1977b), and *creative* modeling implies the production of innovative patterns arising from observation of modeled behaviour. In the latter instance, "observers combine aspects of

various models into new amalgams [differing] from the individual sources" (Bandura, 1977b, p. 48) thus producing a conglomerate of characteristics.

Influence of Observer Characteristics

Innate characteristics of the observers themselves, including the previously noted cognitive and motor reproduction processes, determine, to a certain extent, their responsiveness to modeled behaviour (Bandura, 1977b; Bandura & Walters, 1963). As well, past reinforcement histories, inasmuch as the individual has experienced rewards, for example, determine a person's degrees of self-esteem, competency, and dependency. It has been shown that observers lacking these attributes "are especially prone to imitate a successful model" (Bandura & Walters, 1963, p. 85). As students who are hard of hearing have been described as lacking these qualities, it could follow that modeling of appropriate behaviours would effectively improve their social skills. However, Bandura (1975) later recants this consideration, being critical of ambiguous research designs. He also reports a paucity of research definitively correlating the effectiveness of matching observer and model characteristics. Moreover, he challenges the 1963 perspective by suggesting that it is more logical that "the more venturesome and talented [observers] are apt to derive the greater benefits from observation of exemplary models" (Bandura, 1975, p. 9) leading to more positive beliefs in one's own capabilities. Thus, "observers' capacities to process information govern how much they will benefit from observed experiences" (Bandura, 1977a, p. 25).

Influence of Model Characteristics

It is reported that certain characteristics of models tend to enhance an imitative response. Research indicates that models with interpersonal attraction qualities tend to be more readily imitated than those who lack these qualities (Bandura, 1977b; Bandura & Walters, 1963). Interpersonal attraction is based upon the observer's judgment, however. Generally speaking, though, models who tend to prompt imitation are usually perceived to be those who are rewarding or who have: prestige; competence; high status; or power, in

that they have control over rewarding resources (Bandura, 1977b; Bandura & Walters, 1963). Their functional value, or ability to convey information, is also a consideration (Bandura, 1972). Although adults, specifically teachers, would likely possess these characteristics in greater abundance than a student's peers, these findings provide an explanation for why some behaviours are more readily imitated. This is particularly true of adolescents, especially since it has also been found that similarity between the model and observer (as in age and sex) also encourages modeling (Bandura & Barab, 1971; Kazdin, 1976). Thus, someone similar in age and sex to the observer, also possessing the previously stated interpersonal attractiveness characteristics could be a powerful source of modeling behaviour. Bandura and Walters (1963), however, report that adult models effect more change than do peers, especially for individuals who exhibit greater dependency, as Antia (1982, 1985) indicates is the case for students who are hard of hearing. Nonetheless, as was reported earlier in the discussion supporting regular education of students who are hard of hearing, peers can also be effective models (Anderson, 1937, as cited by Bandura & Walters, 1963; Kazdin, 1976).

Reinforcement or Motivational Processes

Some similarities to operant conditioning may be found in the use of reinforcements in social learning theory, although their role, timing, and type have been extended and modified in the latter model. A concise difference between traditional reinforcement approaches and social learning theory has to do with locus of control. The former approach focusses "almost exclusively on the control of responses through externally administered consequences" (Bandura, 1972, p. 48). Conversely, from a social learning perspective, behaviour is maintained through internal self-reinforcement as well as by direct, externally experienced consequences, including vicarious reinforcement (Bandura, 1972, 1977a). Nonetheless, Bandura (1977b) adds the point that observers will only be motivated to "adopt modeled behaviour if it results in outcomes they value" (p. 28) and if the consequences "are compatible with those that are self-produced" (p. 155).

Types and Consequences of Reinforcement

With these cautions in mind and although more detailed discussions of this topic may be found in the writings of social learning theorists, reinforcements in the social learning model may be: i) *positive* or *negative* as in reward and punishment; ii) *direct* or *vicarious*; iii) *immediate* or *delayed*; or iv) *external* or *self-generated* (Bandura, 1972, 1977b). Furthermore, response consequences have three main functions: i) to impart *information* which may guide future action ii) to *motivate* by triggering anticipatory processes; and iii) to *reinforce* or strengthen responses automatically as long as the observer or participant is aware of what is being reinforced (Bandura, 1977b). Bandura (1977b) suggests, however, that it may be more appropriate "to speak of *regulation* than *reinforcement* of behavior by its consequences" (p. 21), implying that reinforcement may be considered a facilitative rather than an essential component of social learning. Moreover, as per the previous discussion on the role of anticipation, it has also been shown that observational learning improves when observers are told ahead of time of the benefits of adopting the modeled behaviour rather than only rewarding the imitation after the fact (Bandura, 1977b).

The reasons social learning theory has a broader concept of reinforcement regarding its source are summarized in the following comments:

> Most human behavior, of course, is not controlled by immediate external reinforcement. Rather, people regulate their own actions to some extent by self-generated anticipatory and self-evaluative consequences. At this higher level of psychological functioning people set themselves certain performance standards, and they respond to their own behavior in self-rewarding or self-punishing ways, depending on whether their performances fall short of, match, or exceed their self-imposed demands (Bandura, 1972, p. 48).

More extensive discussions of standard setting and self-efficacy may be found in other sources as well (Bandura, 1977a/b, 1989).

Influence of Direct Reinforcement

Vicarious reinforcement is discussed in greater length shortly, but the elements of direct reinforcement and their influence on observers' behaviour are summarized here into six key

points: i) *reinforcement informs observers* of appropriate responses; ii) *selective reinforcement directs performers' attention* toward significant environmental cues that indicate likely consequences of various behaviors; iii) *previously experienced outcomes enhance the observer's motivation* to perform in ways that ensure positive consequences and avoid punishment; iv) *punishing experiences can inhibit* responsiveness; v) *repeated successes and failures can change people's self-evaluations* and affect their determination and willingness to engage in conduct that is discrepant with their value system; and finally, vi) *the treatment one receives can either increase or decrease the attractiveness* of the person doing the reinforcing (Bandura, 1977b).

In addition to helping regulate overt behaviour reproduction, reinforcement may have another benefit. As attention to appropriate elements is essential for matching responses, reinforcement may also exert "selective control over the types of modeling cues to which a person is most likely to attend" (Bandura, 1972, p. 48). The importance of this was discussed earlier.

Developmental Considerations

Developmental experiences also affect what individuals find reinforcing (Bandura, 1977b). Younger children, for instance, generally respond better to immediate physical consequences such as food or physical contact. As individuals mature, they usually become more responsive to the interest and social approval of others. Therefore, the development of social incentives is critical to social learning and appropriate social interactions.

Vicarious Reinforcement

As imitation of direct or vicarious, real or symbolic models is an integral principle of SLT, it has also been found that observation of reinforcement of models encourages social learning and matching behaviour (Bandura, 1977b; Bandura & Barab, 1971; Bandura & Walters, 1963; Kazdin, 1976). Describing experiences not uncommon to many students, the following statement highlights the implementation of this element of social learning practices:

> Socializing agents, for example, parents and teachers, frequently make use of exemplary models and from time to time reward or punish children in front of others in the expectation that the positive or negative reinforcement will influence the future behavior of the observers (Bandura & Walters, 1963, pp. 181-182).

Consequences of Vicarious Reinforcement. There are five main functions of vicarious reinforcement that may affect the observer: i) *informative,* whereby observers may learn to anticipate what consequences might accompany their later imitation of the modeled behaviour and under what circumstances; ii) *motivational*, in which expectations are generated for similar benefits for matching behaviour; iii) *emotional learning*, in that observers can be aroused by the emotional reactions of the models; iv) *valuation* wherein the observer's value system may be implicated; and v) *influenceability*, insofar as the observer is influenced by the way in which the model responds to the consequence (Bandura, 1977b).

Discipline

Disciplinary techniques, from a social learning position, are considered a part of reinforcement patterns. These practices may include such things as "physical punishment, verbal attack or criticism, deprivation of privileges, threat of loss of love, isolation, or reasoning" (Bandura & Walters, 1963, p. 188). They may be further classified as either psychological or material discipline. It is indicated, however, that psychological disciplinary methods are more effective for the achievement of self-control (Bandura & Walters, 1963). As there has been disagreement among researchers regarding the classification headings because of overlap, Bandura and Walters (1963) stated that "any disciplinary act may involve in varying degrees at least two operations, the *presentation of a negative reinforcer* and the *withdrawal of positive reinforcement*" (p. 189).

Contingency. It has been proposed that effectiveness of disciplinary methods may be enhanced when termination of punishment is contingent upon the child's compliance with the adult's demands (Bandura, 1977b; Bandura & Walters, 1963). In this manner, withholding positive reinforcement until the child complies can be effective in establishing

self-control as efforts are well-maintained when consequences depend on one's own behaviour (Bandura, 1977b). An example of extinguishing withdrawal behaviour may help to clarify this point.

An observation was conducted of a preschool child who tended to withdraw from interaction with his peers in the classroom. Each time this behaviour was displayed, the well-meaning teacher would try to draw him out and encourage more active participation in his classmates' activities. This essentially reinforced his withdrawn behaviour. However, when the teacher later made her positive interactions with the child contingent upon his participation away from his chosen corner of isolation and praised him for his prosocial behaviour, his social interactions increased (Harris, Wold, & Baer, 1964 as cited by Bandura, 1977b).

Reinforcement of Incompatible Prosocial Behaviour

The previously illustrated intervention has the added element of "eliciting and reinforcing [prosocial] responses incompatible with a...deviant activity" (Bandura & Walters, 1963, p. 199). This strategy, which can also be known as active counterconditioning, "primarily emphasizes the production of prosocial behavior, involves actively teaching the child what [s/he] should do, and focuses relatively little on the deviant or erroneous response" (Bandura & Walters, 1963, p. 199).

There is an additional benefit of strengthening incompatible prosocial responses related to the temporary increases in undesirable behaviour that may occur when tactics are implemented to extinguish it. Bandura and Walters (1963) assert that reinforcement of incompatible prosocial activity may forestall or minimize this occurrence. This technique has been found to be specifically effective in modifying children's responses to frustration and for fostering cooperative behaviour (Chittenden, 1942, as cited by Bandura & Walters, 1963). Therefore, Bandura and Walters (1963) believe in the strength of eliciting and rewarding prosocial behaviour as opposed to the less successful attempts at only modifying

deviant responses as they occur. "Catch them being good" is the current maxim interpreted from this approach.

Reasoning

Because of the interactive quality of individuals' cognitive capabilities with their environment, reasoning has been shown to be an effective disciplinary technique as it fosters nonaggressive prosocial behaviour. Reasoning, as a disciplinary strategy, also allows the adult to model nonaggressive responses in frustrating social interactions (Bandura & Walters, 1963). Moreover, a reasoned explanation of the benefits of prosocial behaviour enhances the role anticipation plays by allowing individuals to activate their cognitive processes. Given opportunities to exert self-control over their environment empowers individuals, resulting in reinforcement of their self-efficacy. Provision of choices and the opportunities to act upon them is far more effective than external punishment. As "reasoning is more likely than physical punishment to occur early in a deviant response sequence" resistance to deviation is also fostered (Bandura & Walters, 1963, p. 196).

Self-Reinforcement

Because of cognitive abilities to symbolize and self-react, individuals also engage in self-reinforcement (Bandura, 1977b). This occurs when personal standards are set and subsequent actions are self-rewarded or self-punished. This can lead to the ultimate goal of self-control. Performances are subsequently improved primarily because of the motivational function of self-reinforcement. Bandura (1977b) succinctly summarizes the elements of self-regulated reinforcement, but the three component processes involved in self-regulation of behaviour essentially are: i) *evaluation of performance*; ii) *judgments* regarding personal standards, referential performances, valuation of the activity, and whether the performance has a personal or external locus; and iii) *self-response* which includes positive or negative evaluative reactions, or tangible self-applied consequences that are rewarding or punishing. Conversely, there may be no self-response.

Maintenance

Final comments regarding the self-reinforcement process pertain to its maintenance. There are five conditions that provide incentive for sustaining self-reinforcement: i) *negative sanctions* against unmerited self-reward; ii) *predictive situational determinants* whereby self-control is maintained through self-arranged reinforcement; iii) *personal benefits* which refers to the administration of self-reward when the behaviour being sought to change is personally aversive; iv) *modeling supports* which implies the reciprocal interaction of self and environmental factors; and v) *self-criticism* which may also be implemented because it may relieve thought-produced distress and reduce the threat of external punishment (Bandura, 1977b). Of particular relevance to this thesis, self-reinforcement responses and standard setting may be taught directly or learned through modeling (Bandura, 1977b).

Development of Self-Control and Aggression Control

Self-control of individuals is needed for the well-being and convenience of other society members as all cultures have social demands, customs, and taboos demanding such (Bandura & Walters, 1963). An integral goal of social learning theory is the development of self-control. A reminder to professionals involved in social skills training is that initially the internalization of self-control will be conscious and deliberate. Eventually automaticity develops and overt behaviour patterns occur without much conscious deliberation (Bandura, 1977b).

Forms of Self-Controlling Behaviour

There are three forms of self-controlling behaviour delineated by Bandura and Walters (1963): i) *resistance to deviation*; ii) *self-administered reinforcement*; and iii) *delay of gratification*. To facilitate these, it is essential for the individual to "discriminate circumstances under which certain classes of behavior may be exhibited from those under which they are not socially acceptable, and to utilize only those forms of response that are

appropriate for the occasion" (Bandura & Walters, 1963, p. 167). A brief discussion of aggressive behaviours illustrates this point (Bandura & Walters, 1963).

Children must learn, for example, to discriminate between the inappropriateness of fighting on the playground with their schoolmates, while also acknowledging the acceptability of pugilism in a boxing ring. In the latter case, aggressive punching is encouraged, but not kicking nor biting. Further discrimination must also be internalized regarding the acceptability of aggression by protection agents, such as police officers. Self-control, therefore, is not a straight-forward, learned skill. It must be refined and modified and is developed through exposure to a variety of social modeling observations as proposed by social learning principles.

Maintenance

From a social learning perspective, self-control seems to be maintained through two methods: i) a personal devaluation of goals that are not readily attainable or are forbidden; and/or ii) placing a high evaluation on unpleasant means to a highly desired goal. When individuals postpone "culturally approved immediate reinforcements in favor of some potentially more rewarding long-term goal", they are exhibiting self-control (Bandura & Walters, 1963, p. 171).

Control of Aggression

A benefit of learning aggression control is evidenced in research. One study, for example, found that less aggression was seen in nursery school children who exhibited a great deal of persistence and willingness to delay rewards (greater self-control) (Livson & Mussen, 1957, as cited by Bandura & Walters, 1963). Concomitantly, control of aggression improves with the teaching of self-control.

Discussion

Self-control and control of aggression may be taught using the principles of social learning theory. The reader is referred to Bandura and Walters (1963) for a more comprehensive discussion of the use of modeling for teaching these essential social skills.

Succinctly summarizing the essence of their approach, though, Bandura and Walters (1963) state: "control over aggression can be vicariously transmitted through the influence of models either by the administration of punishment to the model or by the presentation of incompatible prosocial examples of behavior" (Bandura & Walters, 1963, p. 178). Moreover, it is a basic premise of social learning principles that discriminative self-controlling behaviour will likely be acquired by "exposure to differential modeling cues and differential patterns of reinforcement" (Bandura & Walters, 1963, p. 222).

Self-Efficacy

An additional essential element for and consequence of implementing social learning principles in social skills training is enhanced self-efficacy. When individuals are empowered and accepting of more personal responsibility for their responses, they cope better (Bandura, 1976). Consequently, self-control and competence improve and social/emotional development and acceptance are enhanced (Bandura, 1976, 1977b).

Beliefs about one's capabilities, or self-efficacy, correspondingly allow individuals to exercise control over their environment (Bandura, 1977a/b, 1989). Thus, cognitive beliefs "influence emotional functioning that, in turn, influences behavior" (Harvey, 1989, p. 96). Such thoughts may be self-aiding or self-hindering (Bandura, 1977a, 1989). Green (1976) reinforces the need for professionals to identify and to help develop students' strengths. This is particularly critical for students with hearing loss as discussed in Chapter V.

Individuals with a high sense of efficacy tend to have greater motivation. Thus, they are more persistent and self-confident in their efforts, even when faced with setbacks or challenging situations (Bandura, 1977a, 1989; Harvey, 1989). Lack of self-efficacy indicates a lack of standard setting and an intact value system as well as dysfunctional self-evaluative systems. Effective intervention must, therefore, also include helping individuals credit themselves for success. The principles or tactics of shaping behaviour/guided practice can be effective for attaining self-efficacy.

The degree of self-efficacy also directly impacts one's affect (Bandura, 1989). The individual lacking self-efficacy may be unmotivated, bored, and dependent upon external reinforcement (Bandura, 1977b). Thoughts of inadequacy are self-defeating and can affect feelings of self-worth and self-confidence often leading to depression and lack of motivation (Bandura, 1977b, 1989).

Sources of Efficacy Expectations

The theory of self-efficacy is affiliated with social learning theory, in that there are five main sources of efficacy expectations: i) *personal performance accomplishments*; ii) *vicarious experiences*, whereby witnessing someone else's accomplishments may persuade the individual that s/he is also capable of achieving performance improvements; iii) *verbal persuasion* or *reasoning*; iv) *physiological states* or *emotional arousal*, wherein individuals interpret their capabilities by the degree of anxiety or fear reactions experienced; and v) *situational circumstances* such as the complexity of the task (Bandura, 1977a/b).

Dimensions of Efficacy Expectations

There are three main dimensions in which efficacy expectations may vary: i) *magnitude*, or level of difficulty, whereby individuals may feel capable of only accomplishing simpler tasks; ii) *generality*, in which feelings of efficacy may or may not generalize beyond the specific task; and iii) *strength*, which refers to the degree of perseverance of coping efforts despite dissuading experiences. This implies that stronger efficacy expectations will likely result in more successful performances in difficult or threatening situations (Bandura, 1977b). Thus, a relationship exists between perceived self-efficacy and changes in behaviour which is directly relevant to the topic of the present thesis.

Discussion

Practical suggestions and more extensive discussions of the elements of and reasons for enhancing thoughts of self-efficacy may be found elsewhere (Bandura, 1977a/b). Nonetheless, a summative statement underlying the theory of self-efficacy as a component of social learning theory made by Bandura (1977a) is included here:

> People process, weigh, and integrate diverse sources of information concerning their capability, and they regulate their choice behavior and effort expenditure accordingly (p. 212).

Thus, as feelings of self-efficacy encourage feelings of self-confidence, behaviours are exhibited that promote egalitarian relationships with others which, in turn, enhance feelings of self-efficacy and self-confidence (Harvey, 1989).

Concluding Comments

To summarize, social learning theory is concerned with the reciprocal interaction between people and their environment. Thus, "behavior, other personal factors, and environmental factors all operate as interlocking determinants of each other" (Bandura, 1977b, p. 10). An individual's learning must be evaluated, therefore, at both the overt and the covert levels, i.e., motoric behaviour reproduction and cognitive processes. The environment influencing the social behaviour of an individual may include the overt behaviour of models, or social agents, as well as the type, timing, and recipient of reinforcement. Furthermore, Bandura (1989) indicates that an effective self-motivational control system must include the properties of

> (a) predictive anticipatory control of effort, (b) affective self-evaluative reactions to one's performances rooted in a value system, (c) self-appraisal of personal efficacy for goal attainment, and (d) self-reflective metacognitive activity concerning the adequacy of one's efficacy appraisals and the suitability of one's standard setting (p. 1180).

Observational learning may also be enhanced by:

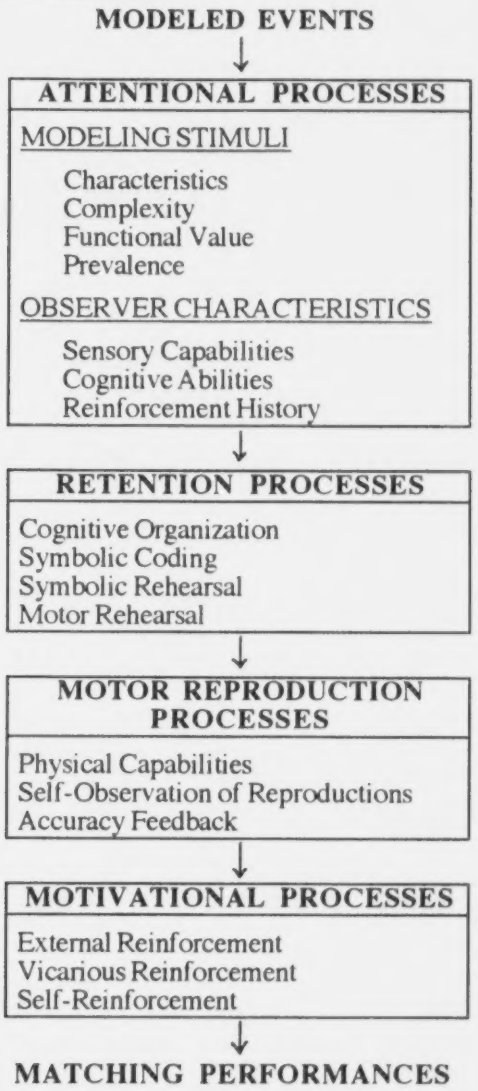
> acquiring and improving skills in selective observation; in memory encoding; in coordinating sensorimotor and ideomotor systems; and by the ability to foresee probable consequences of matching another's behavior (Bandura, 1977b, p. 29).

Furthermore, there are three succinct factors that determine an observer's responsiveness to modeling cues: i) the *model's characteristics*, including their functional value; ii) *observer's attributes*; and iii) the *consequences* of matching behaviour (Bandura, 1977b).

In analyzing SLT, a summary of the subprocesses governing observational learning is shown in Table C.1.

Table C.1

Subprocesses Governing Effective Imitation



Note. Adapted from Bandura, 1972, 1977b.

Implications drawn from table C.1 identify that failure to appropriately match modeled behavior may be a result of i) *failure to attend* to the relevant elements of the modeled behaviour; ii) *inadequate coding* of the modeled events for memory representation; iii) *retention difficulties*; iv) *physical inadequacies* for performance; v) *insufficient motivation* or vi) *reinforcement inadequacies* (Bandura, 1972, 1977b). Consequently, proponents of social learning theory believe that modeling, guided participation, and reinforcing consequences or successful experiences, are the most powerful means to effect behavioural and psychological change (Bandura, 1976; Jeffrey, 1976) in terms of increasing "people's capacity to regulate their own feelings, thoughts, and actions" (Bandura, 1977b, p. 145). Succinctly, this means that "learning is fostered by modeling and instruction as well as by informative feedback from one's own transactions with the environment" (Bandura, 1977b, p. 91). Adding to this, Bandura (1977b) summarily identifies factors which may, depending on the situation, determine the adoption of behaviour: "i) the *stimulus inducement*; ii) the *anticipated satisfactions*; iii) the *observed benefits*; iv) the *experienced functional value*; v) the *perceived risks*, vi) the *self-evaluative derivatives*; vii) the various *social barriers*; and vii) *economic constraints*" (p. 54, italics added).

A caution to advocates of social learning theory is necessary. The reciprocal interaction of individuals and their environment has already been established as central to SLT. Looking solely at the cognitive side of the issue for a moment, it has also been affirmed that consequences–internal, external, and vicarious–have the ability to influence thoughts and feelings. Observation of the results of these influences can be difficult, however, as cognitive processes are not publicly visible. Bandura (1977b) suggests that "this problem can be easily overcome by having models [and/or the observers, depending on the situation] verbalize aloud their thought processes as they engage in problem-solving activities. The covert thought component is thus given overt representation" (p. 189). Self-talk done aloud has the added benefit of providing additional auditory feedback to both the

individual and the person involved with tuition of social skills. Appropriate intervention and opportunity for renewed modeling may consequently occur. This is yet another example of how behaviour influences cognition and cognition influences behaviour and of overt to covert symbolic rehearsal.

In Figure C.1, one can envisage the circular and interactive nature of the benefits of enhancing observational learning: social skills can be improved by observational learning; self-efficacy and other elements of emotional status are enhanced through improvement of social skills; and more effective modeling occurs in observers who have greater self-efficacy, competence, and self-esteem.

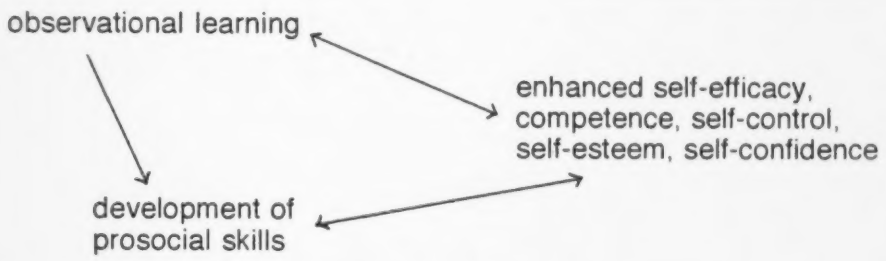


Figure C.1 Interactive Elements and Benefits of Observational Learning

Thus, social learning is continuous and as each of the previously stated elements is enhanced or already exists, each of the others will correspondingly improve.

Summary

The purpose of this Appendix was to identify and summarize the key principles of the social learning theory developed by Bandura and his associates. The contents of this Appendix complement and extend the discussion regarding the applicability of this theory to students who are hard of hearing contained in Chapter V.

APPENDIX D

COPYRIGHT PERMISSION REGARDING CHAPTER II

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March 26, 1996

Pat Hughes
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Letter of Permission

Dear Pat:

As the editor of the ACEHI Journal I am please to grant a one-time permission to use, in whole or in part, material from the article entitled *Teaching strategies for hard of hearing mainstreamed students*. in your paper format Master's thesis.

I would like to thank you for contributing to *The ACEHI Journal/La Revue ACEDA* in the past and I hope you consider our Journal in the future when you complete the other papers that make up your thesis research.

Sincerely

Rod G. Beattie, PhD, Managing Editor
The ACEHI Journal/La Revue ACEDA

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April 11, 1996

Pat Hughes
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Dear Pat

RE: LETTER OF PERMISSION

As the co-author, I am pleased to grant permission to use, in whole or in part, material from the article entitled *Teaching Strategies for Hard of Hearing Mainstreamed Students* in your thesis.

Good luck!

Sincerely

Michael Rodda
Director

/gm

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EDUCATION:

1978 • Attained a Bachelor of Education degree
(Majors in Special Education and Reading/Language)
University of Alberta

1993 • enrolled in Master of Education Program in Deafness Studies Program, Department of Educational Psychology, University of Alberta.

ACADEMIC AWARDS AND DISTINCTIONS

1974–1978	Tuition Fees Bursary from Northwestern Utilities Ltd. for academic standing.
1993- ongoing	Graduate Assistantship Positions
1995–1996	Scholarship Award from *National Access Awareness Week* for academic standing and community involvement.

Grants Received:

Secretary of State–*Educational Workshop Program on Hearing Impairment.* $17,500 for 1993–1994. (With Cindy Gordon and Dr. Michael Rodda)

Employment and Immigration Canada: *Summer Employment Experience Development (SEED).* May 2–Aug. 5, 1994. $2,083.00. (With Dr. Michael Rodda)

Employment and Immigration Canada: *SEED Best Matches* Oct. 3, 1994–March 31, 1995. $1,105.00 (With Dr. Michael Rodda)

Human Resources Development Canada: *Summer Career Placement Program* May 8–Sept. 1, 1995. $2,625.00. (With Dr. Michael Rodda)

GRADUATE COURSE WORK:

ED PSY Course Number:	Course Description:
449	Deafness: An Introduction and Survey
450	Introduction to Language Development
564	Oral Communication in the Instruction of Students Who are Deaf or Hard of Hearing
574	Oral/Auditory Rehabilitation in the Instruction of Students Who are Deaf or Hard of Hearing
565	Manual Communication in the Instruction of Students Who are Deaf or Hard of Hearing
566	Curriculum Design and Instructional Strategies for Deaf and Hard of Hearing Students
567	Social Psychology of Hearing Impairment
569	Language Development and Remediation with Deaf and Hard of Hearing Students
570	Practicum in Education of Deaf and Hard of Hearing Students
571	Internship in Education of Deaf and Hard of Hearing Students
SPA 545	Audiology for Educators of the Deaf and Hard of Hearing
501	Introduction to Methods of Educational Research
503	Qualitative Methods of Educational Research
599	Developmental Psychology

PROFESSIONAL DEVELOPMENT:

The following topics highlight a few of the additional courses, seminars and workshops attended:

- American Sign Language
- Behaviour Management of Children
- Bioenergetics
- Counselling of Children
- Counselling the Communicatively Disordered and Their Families
- Diagnostic Reading
- Issues in Parenting a Hearing Impaired Child and Working with Families of Hearing Impaired Children
- Language Basis of Reading Disabilities
- Math Their Way
- Neuro Linguistic Programming
- Personal Growth
- Photography
- Psychotherapy with Deaf and Hard of Hearing People
- Radiant Living Through Inner Health
- Speechreading Teacher Training
- Teaching the Victim of Sexual Abuse
- Transcendental Meditation

PUBLICATIONS (* Denotes Refereed Journal)

Alberta Hearing Aid Practitioners Association. (1995, September). *Presentation to the standing policy committee on community services*. Alberta: Author.

Deaf and Hard of Hearing Mental Health and Well-Being Committee Report. (1994, November). *Bridging the silence to prevent violence*. Edmonton, AB: Alberta School for the Deaf.

* Hughes, P. (1995). Organization of oral communication services for students who are deaf: In search of the ideal arrangement. *The ACEHI Journal/La Revue ACEDA, 21 (1)*, 47–55.

* Hughes, P. (1995). Book Review: Discovering with words and signs: Sign Talk Development Project, A resource guide by Charlotte Evans, Kyra Zimmer, and Denise Murray, Edited by Greg Evans. *The ACEHI Journal/La Revue ACEDA, 21 (1)*, 69-71.

* Hughes, P., Cantlie, C., & Rodda, M. (1995). Assistive listening and related support for students who are deaf or hard of hearing. *The ACEHI Journal/La Revue ACEDA, 21 (1)*, 56-61.

* Hughes, P. & Rodda, M. (1995). Teaching strategies for hard-of-hearing mainstreamed students. *The ACEHI Journal/La Revue ACEDA, 21 (2/3)*, 94-108.

Hughes, P., Rodda, M., Beattie, R. G., Cumming, C., & Martin, S. (Feb. 1996). *The Interpretive Process in Mental Health Settings*. Poster Presentation: Graduate Research Expo, University of Alberta.

Rodda, M., Beattie, R., Cumming, C., Martin, S., & Hughes, P. (1995). *Interpreting in psychoeducational settings: A special case of pragmatics*. Poster Presentation: IV European Congress of Psychology, Athens, Greece.

Rodda, M., Cumming, C., Urion, C., & Hughes, P. (1994). *Mental health and deafness: An ethnographic study*. Poster Presentation: Research Revelations '94. University of Alberta.

Rodda, M., Gordon, C., & Hughes, P. (1993). *Awareness training in hearing impairment for career consultants in Alberta Career Development*. Edmonton, AB: University of Alberta Press.

Rodda, M., & Hughes, P. (1995). *Calgary board of education: Review of services for deaf and hard of hearing students*. Edmonton, Alberta: Western Canadian Centre of Studies in Deafness.

Rodda, M., & Hughes, P. (1995). *Sign Talk Development Project: Final review report*. Edmonton, AB: Western Canadian Centre of Studies in Deafness.

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May–September, 1995	Research Assistant	University of Alberta
October, 1994–March 1995	Research Assistant	University of Alberta
May – August, 1994	Summer Research Assistant	University of Alberta
September, 1993 – ongoing	Graduate Assistantship Position	University of Alberta
May, 1993 – ongoing	Educational Consultant	*Hard of Hearing Resource Services* University of Alberta
1992	Teacher Aide III	Strathcona County Schools
1978-1990	Special Education and Regular Teacher (Grades 1-9)	Strathcona County Schools

GENERAL VOLUNTEER EXPERIENCES:

1973 -1974	• Teacher aide in an E.M.H. classroom
1981-1983	• 4 H trainer
1991 - 1992	•Teacher aide in Special Education Centre with Learning Disabled and E.M.H. students
1994- ongoing	• Counselling Services for the Hard of Hearing/ Hard of Hearing Resource Services; U. of A.

VOLUNTEER BOARD REPRESENTATION:

DATES:	ORGANIZATION AND POSITIONS HELD:
	• ***Canadian Hard of Hearing Association*** *(CHHA):*
1992 - ongoing	Regular Member;
1994 - ongoing	National Elected Board Director
	• ***Canadian Hard of Hearing Association-Edmonton Branch*** *(CHHA-Ed)* :
(1992)	Founding member
1993 -1994	Treasurer;
1994 - ongoing	Vice-President
	• ***Children's Indoor Playground Society:***
1984 - 1990	Regular Member and volunteer;
1989 - 1990	President
	• ***Deaf and Hard of Hearing Mental Health and Well-being Committee:***
1993 - ongoing	Member
	• **Disability Awareness Training–Edmonton International Airport**
1995-ongoing	Volunteer Presenter of *The Traveller with a Hearing Loss*
	• ***Edmonton Hard of Hearing Association for Adults*** **:**
1992 - 1995	Member and volunteer
1993 - 1995	Secretary
	• ***Employment Development Service:***
1992 - ongoing	Director
	• ***Family Violence Prevention for People who are Deaf and Hard of Hearing:***
1994 - ongoing	Project Committee Member
	• ***Fort Saskatchewan and Area Canine Association:***
1980 - 1985	Founding Member and held each of the Executive positions
	• ***Jones Lecture Committee*** (University of Alberta)
1993 - ongoing	Member